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ABSTRACT

To broaden and extend the Mt. Druitt Early Childhood Project, a study was made of variables that research suggested were associated with classroom disruption in the primary school. Disruptive incidents in the classroom were construed as sequences of behaviors involving one or more students and the teacher in which class order breaks down and the teacher responds in ways intended to restore order. The literature suggests that classroom disruption (1) varies inversely with grade level; (2) covaries with pupils' and families' socieconomic status and pupils' prior academic achievement; (3) varies in degree according to instructional setting; and (4) consists mostly of off-task talk and out-of-seat behavior. Previous findings also suggest that (1) teachers generally cope with disruption by using direct verbal techniques; (2) given different teachers, children may display different levels of disruption; and (3) teacher desists, or attempts to handle classroom misbehavior, are immediately effective. Participating were disadvantaged students attending third- and fourth-grade classes in five schools in the Mt. Druitt district and their nondisadvantaged counterparts attending contrasting schools within the Sydney, Australia, greater metropolitan area. On the basis of observations made with specially designed instruments, disadvantaged children were found to be neither more nor less disruptive in school than were the nondisadvantaged youngsters with whom they were compared. (RH)

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MT. DRUITT LONGITUDINAL STUDY

SCHOOL OF EDUCATION MACQUARIE UNIVERSITY, NORTH RYDE, AUSTRALIA 2113

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Classroom Disruption in Disadvantaged and Non-Disadvantaged N.S.W. Primary Schools

by
PETER O'BRIEN

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Classroom Disruption in Disadvantaged and Non-Disadvantaged N.S.W. Primary Schools

Peter O'Brien

A Report of the Mt Druitt Longitudinal Study

The research, of which that reported here forms part, has been supported by the Bernard van Leer Foundation of The Hague and the Australian Schools Commission

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Background

Mt Druitt lies some thirty-five to forty-five kilometres to the west of the central business district of Sydney, the capital of New South Wales. Its placement on the city fringes ensures that those who have their residences there are effectively cut-off from the life of the city. Mt Druitt is young: it is a 'new-town' developed in a little over ten years to accommodate over ninety thousand people; the average age of the Mt Druitt population is below twelve years.

More than ninety percent of the homes in Mt Druitt were built by the N.S.W. State Government's Housing Commission in order to accommodate lower income earners. Without this Government assistance, Mt Druitt residents would probably never have owned their own home while their history of renting may well have been one of discontent and dislocation. The houses provided by the State authority are of a high standard although the district has generally been starved of community resources. It is only recently that a Public Hospital, for example, has been opened with the population probably now over ninety thousand.

Government policy has concentrated lower income families into Mt Druitt creating an area with intense personal and social needs and problems. Vinson and Homel (1976), in "Indications of Community Well Being", for example, show that Mt Druitt is part of an area at 'high risk' in terms of physical and mental health breakdown, lack of economic self-sufficiency, social disorganization, family instability, and educational disadvantage. The New South Wales Department of Youth and Community Services (1980) identified western Sydney, including Mt Druitt, as an area disadvantaged through the high cost of travel, the lack of public transport and higher levels of unemployment, family breakdown, juvenile delinquency, and placement of children in care, than found in the general N.S.W. population. Figures provided by the same Department show that this western Sydney region, with 15.8% of the population, attracts over 40% of the States' Emergency Cash Fund Assistance.

A survey of families, in May 1981, whose children were taking part in the Mt Druitt Longitudinal Study, of which the research reported here formed part, indicated that about a quarter of the Mt Druitt children in that Study came from a single parent family, almost all of which families depended upon social welfare payments and rent subsidisation as their sole income source. Of the remaining Mt Druitt families the male parent was unemployed in about fifteen per cent of cases with these families also dependent upon welfare payments. Taken together, these responses indicated that about one third of Mt Druitt families depended upon social welfare. Analysis of the employment of Mt Druitt males showed that the majority held unskilled or semi-skilled jobs likely to attract wages at the average male wage level, at best, but below it in the majority of cases (O'Brien, Belme,Clark,Houghton,Webster:1982).

Infants (K-1-2), Primary (3-6) and High (7-12) Schools were provided in the Mt Druitt area early in the district's building boom. As New South Wales has a centralised education authority, the schools compare favourably with those located elsewhere in the State in terms of basic building stock, available resources, and the professional characteristics of the teaching staff. In fact, as the majority of Mt Druitt's schools have been officially recognised as 'Disadvantaged' by the Australian Federal Government's Schools Commission, and eligible therefore for additional assistance, their level of funding can be more than favourably compared to other N.S.W. schools. As the average age of the school population in Mt Druitt increases, the school-age population bulge is moving on to the High School and numbers in Infants' and Primary Schools, which were much larger than official policy had desired, are dropping. It has been reported by School Counsellors familiar with the area that Mt Druitt High Schools experience drop-out and truancy rates as great, or greater than any High Schools in Australia; claims that up to one third of Mt Druitt High School aged youngsters are not present at school on any given day have been made. Surveys of educational achievement of Mt Druitt Primary children have identified a serious problem with more than 40% of the population being at least one grade retarded in the basic skills.

The Macquarie University School of Education, concerned for the educational disadvantage of the children of Mt Druitt, first became involved in the area in 1975 when attempts to ameliorate the educational disadvantage, through impactive preschool programs, commenced. Five preschool programs, each with a distinctive theoretical base, were designed and implemented in purpose built buildings. The programs shared much the same concern as had the Head Start and Follow Through projects in the U.S., their designers believing that Mt Druitt youngsters could be assisted by preschool experiences to enter the formal school with greater readiness and an increased likelihood of academic success in their later years. Intervention, consistent as far as possible with the theoretical bases of the five preschool programs, was also conducted in the children's Kindergarten and First Grade years.

Evidence suggested (Braithwaite, 1983) that those Mt Druitt children who had attended consistently in the preschool or who had experienced the later special programs in Kindergarten and First Grade did benefit from their experiences, at least initially.

It was recognised, of course, that the nature of the samples and sites in this Early Childhood Project, being consistently chosen for their 'disadvantaged' characteristics, precluded the generalization of information drawn solely from Mt Druitt to a wider Australian population. Nevertheless, continuation of the Mt Druitt involvement of Macquarie School of Education would promote insights into the dynamics of 'educational disadvantage' , and the results of this, for an Australian primary-aged population. Longitudinal studies of Australian youngsters are rare but recognized as invaluable in shedding light onto important questions of normal, and therefore abnormal, patterns of growth. In a sense, the existence of the pool of information concerning a sample of up to 400 Mt Druitt children was a national resource which, with continued growth, could become more and more useful. For these reasons, a new project, designed as a longitudinal study, commenced in January 1981.

With the commencement of that Study the emphasis upon monitoring differences in child effects associated with different intervention programs, that had characterised the Mt Druitt Early Childhood Project, was broadened in order that later differences associated with attendance or non-attendance at any pre-school be monitored. As well, the aims of the Study indicated that normative data for Australian children might be sought. The sample of children remaining from the Mt Druitt Early Childhood Project was not sufficiently representative nor large enough to permit either proper monitoring of differences, or the gathering of normative information. It was clear that the Longitudinal Study would need a large sample. This was achieved initially by including all Third Grade children in the five Mt Druitt Schools but, to ensure both the representation of all ability levels within the sample and that information was drawn from a broader cross-section than a disadvantaged group only, it was also necessary to obtain information from children located outside the Mt Druitt area.

It was decided to maximise the results of the Study by the inclusion of a relatively large group of children who were clearly not disadvantaged as the information obtained from this group would help both to provide normative data and to define disadvantage for Australian children. Children from areas demonstrably different from Mt Druitt, particularly in socio-econornic terms, were included in order to achieve that purpose.

It was also suspected that the geographical location of Mt Druitt, some thirty-five kilometres from the Sydney business centre, was in itself responsible for some of the disadvantage Mt Druitt children suffered. In order to test guesses that this was so, children from near-city locations were included in the Study. The sample was broadened to include a near-city, higher socio-economic status level group of children, and a group from a near-city school, providing both children from homes rented from the N.S.W. Housing Commission, like many homes of Mt Druitt children, and a group of children from a non-anglo/Australian background. Additionally a higher socio-economic status level, outer-city located group was added to complete the sample.

The final sample comprised, in May, 1981;

Mt Druitt children: disadvantaged, depressed achievement scores, distant city centre (603 children);

outer-city children: no disadvantage, high achievement scores; distant city centre (79 children);

near-city children: mostly not disadvantaged, higher to high achievement levels, near city centre(146 children);

near-city children: some disadvantaged, achievement levels unknown, high proportion of children with a migrant background (85 children).

Classroom Disruption

As an activity which would enable the Study team to become quickly familiar with the classrooms involved in the Study, time was set aside early in the first school term (February/March 1981) for visits to classrooms, particularly those in Mt Druitt schools. These observations by the four full-time research staff were best described as casual; they were not seen as ethnographic or systematic in the sense in which those terms are applied to classroom observation. The team, however, could not help but be alerted to events recurring across time in individual classrooms as well as across classrooms.

In discussions following these visits, several matters were raised but each of the four observers independently voiced concern at what appeared to them to be high levels of pupil disruption to lessons in several of the Mt Druitt classrooms. Comment was made also with regard to the apparently high levels of teacher control and management behaviours which appeared to accompany pupil disruption.

Discussions with Principals and teachers in Mt Druitt schools had also covered, amongst many matters, the teacher's perception of the necessity for extra time to be spent in class management in Mt Druitt schools than, they thought, would be the case elsewhere. People in the Mt Druitt schools also expressed an opinion that the curricula needed to be arranged, and instruction presented, in special ways, so that potential disruption could be minimised. Even with such precautions, many teachers suggested, lessons did not flow evenly or smoothly. Several teachers hypothesised that

Mt Druitt children had shorter attention spans, or lacked perseverance, or had poor attitudes to work and that these characteristics presented particular difficulties to the planning of instruction. Others indicated that the family background of most children was responsible for their poor attention in class. On the other hand, there were teachers who insisted that Mt Druitt children were the same as those elsewhere and instructional planning was no more difficult in Mt Druitt than in any school.

The casual observation of the Study team had introduced them to a number of apparently tranquil, disruption-free classrooms. There were, however, classrooms where dissension and tension were marked. The interest of the Study team was provoked by such observations. What were the consequences, in cognitive and emotional terms, for children who spent long periods in lessons markedly disjointed and disconnected as a consequence of pupil disruption and teacher attempts to gain control?

The growing body of literature on academic engagement was one source which suggested that greater interruption to the time spent in instruction and learning may be accompanied by lowered pupil achievement. Humanistic theories, models of child-centred education, and 'self' theories were other sources which suggested that learning could well be affected if the learning environment was not warm, supportive, empathic or emotionally comfortable as might well be the case in classrooms where disruption and control dominated activities. In any case, the quality of the schooling experience of the Mt Druitt children was of interest in itself. Could it be that the dynamics of disadvantage included less opportunity to learn, disjointed instructional presentations, and teaching more often characterised as controlling?

A thorough review of the classroom control and management literature identified that no systematic investigation had been conducted in this area in Australia.

The Mt Druitt teachers and Principals do not provide an isolated example of educational professionals identifying low-income background children as more

disruptive than those from less disadvantaged backgrounds; this view is widespread. In the United States, for example, Harvey (1980:282) noted that "the low income child is supposed to be noisier and more physically aggressive, disruptive and destructive than high income peers" although her own observation in classrooms did not support such claims. Across the Atlantic, Little (1971:65), in Britain, suggested that "a picture of the inner-city (low-income) school being more difficult to teach and learn in than the (higher-income) counter part" was conveyed by the educational literature although, he noted, that most writing was "anecdotal and impressionistic". It has been hypothesised that the basis of the supposed greater levels of classroom disruption may lie in the greater personality 'disturbance' the children of low-income families are assumed to suffer (Brophy and Putnam, 1980:185), or in the greater 'maladjustment' present in such populations (Little 1971:66). Such psychological conditions have been assumed by some to lead directly to disruptive behaviours in the classroom, although an indirect linkage, via educational failure, was suggested by Little (1971:66) who saw failure "preceding and giving rise to" classroom misbehaviour but succeeding maladjustment.

These images of the disadvantaged child fit into 'the clinical view' (Harvey, 1980:281) of such children through which deficits of personality and/or intellect are attributed to them. Clinical theories represent the variety of theories influential today, ranging from those which suggest genetic differences, through those suggesting environmentally based deficits, to those in which the cultural disparity between the disadvantaged child's home and the middle-class institution of school are seen as causal agents. Classroom conduct disorder antecedents, as seen by Quay (1977:11) for example, who represents an extreme clinical view, include: "under reaction in the conduct disorder group" of children when autonomic nervous system reactivity is measured; "a lack of adequate parenting and adequate socializing experiences"; "a family situation marked by active rejection of the child on the part of the parents"; a greater likelihood of their being "middle or last born children in somewhat larger than usual families"; and of having been reared "in a situation unlikely to provide

experiences necessary to make the development of internal controls and responsiveness to the usual social means of control".

In the clinical view the child, then, is seen to be impulsive and 'out-of- control' (including its own), failing to adopt behaviours necessary for ease of life in the complex, social world of the classroom. At the primary school ages, it is held less likely that classroom misbehaviour is designed deliberately as an attempt to anger and humiliate the teacher, as it may be designed to do in the High School (Harvey 1980:282), but remains an unconscious expression of the 'trait deficits' which the child brings to the school room.

On the other hand, there are theories which, by focusing on the institution of the school, highlight 'deficits' in public policy, in persuasive educational perspectives, or in educational practices adopted with low income children, rather than deficits within children. When viewed from this focus classroom life "has almost none of the characteristics of anarchy and impulsiveness that are often attributed to it" (Marsh, Rosser, and Harre, 1978:2). Indeed, Harvey (1980:282), by claiming that society's dominant values and beliefs are "stereotypic and negative", downgrading the low-income child's capacities, behaviour and personality, attacks the clinical viewpoint. Society's negative beliefs, in turn, may be reflected in the policy and teaching practices of schools for low-income pupils, leading the schools to adopt, as Peacock (1968:6) observed, "monotonous curricula" and "low educational and occupational aspirations", and to teach the "low income child different things, in different ways, under different rules and in the face of different (and generally negative) teacher attitudes than were their high-income counterparts". If such is the case it should not be surprising that when Marsh et al (1978:2) viewed classroom life in low-income schools in the U.K. "through the eyes of the (students) who take part in it", they reported that "far from valuing disorder they are engaged in the genesis of significance for their lives and an order in their actions which is their own. The struggle begins when they see many of the things that seem routine to the rest of us as ways of devaluing them".

Competing hypotheses, regarding the genesis of classroom disruption, which locate the failure to maintain a disruption-free classroom specifically within the teacher's lack of skill in being able to avoid or to handle classroom disruption, rather than in the children's "maladjustment", have also been suggested. Brophy and Putnam (1978:8), for example, claimed that teachers who had the "crucial skills" of planning, organising and maintaining a learning environment, maximised student involvement, and minimized student misbehaviour and the need, therefore, to deal with disruption. Canter (1979:3), did not absolve the child from all responsibility but saw that teachers encounter classroom misbehaviour simply because they are "not trained to deal with the behaviour problems today's students present". Such views would suggest the need for changes in the educational philosophies of schools and teachers and/or teacher training programmes to help teachers change the practices which prevail in their classrooms.

A disruptive incident in the classroom is a sequence of behaviours involving both the pupil/s and the teacher: a child, group of children, or the class behaves in such a way that class order breaks down and the teacher responds to this with the purpose of restoring order. As such the teacher's management in disruptive incidents is only one element of the teacher's overall classroom management, which is accepted generally to include teacher techniques which establish and maintain order as well as those which are intended to re-establish order when misbehaviour occurs or class rules are transgressed. It should be seen, given the definition of the disruptive incident above, that the term "discipline" is not a synonym for teacher management of disruption as that term may refer more broadly "to the state arising from effective management" (Cairns 1981:15) or may include pupil self-discipline within its definitional boundaries. Even given the acceptance of the much narrower definition of discipline suggested by Johnson and Brooks (1979:33) which they saw as "maintaining order and dealing with unacceptable behaviour", management of disruption remains an element only in a broader set of teacher management behaviours. On the other hand,

much of the teacher's more general management behaviours will impinge upon disruption, lessening or increasing the likelihood of pupil transgression of classroom rules and, perhaps, influencing the teacher's response to these pupil behaviours.

In classroom disruption the concern is with pupil initiated behaviours which have been identified as "distracting"(Behnke, Bennett, Chase, Day, Lazar, Mittleholtz, 1979:4) or "mildly or seriously deviant" (Borg and Schutz, 1965:37), or "misbehaviours" (Solomon and Kendall, 1975:529) and the teacher's reaction to these activities. The actual pupil behaviours which are viewed as disruptive have been associated into:

> two broad classes (deportment and academic problems) by Duke (1980:4);
>
> four statistically derived clusters of behaviour problems (conduct disorder, personality disorder, inadequacy-immaturity, socialized or sub-cultural delinquency) by Quay (1978:9), or
>
> five statistically derived factor groups (physical aggression, peer affinity, attention seeking, challenge of authority, or critical dissension) by Kooi and Schutz (1965:37); or
>
> five 'mutually exclusive patterns of problem behaviour' within a broader twelve-fold classification of student behaviours (hostile aggression, passive aggression, defiance, hyper-activity, distractibility) by Rohrkemper and Brophy (1980:5); and
>
> seven categories of student misbehaviour (agression, defiance, seeking attention, dishonesty, unruliness, talking, inattention) by Mattaliano (1980:16);

While several of the behaviour patterns (Rohrkemper and Brophy) or clusters (Quay) contain specific examples of pupil behaviour which may clinically be viewed as 'problematic'. it is unlikely that these activities would prove 'disturbing' or 'distracting' to the teacher and would not, therefore, fall within the definition of disruption offered here. Analysis of the listed behaviours which operationally define the categories of pupil misbehaviour presented in these classificatory schemes does suggest that a great deal of overlap occurs across them. In Table 1, overleaf, are listed the contents of the schemes and indications given on the ways the individual schemes overlap. It is the Conduct Disorder class of behaviour problems, as identified in Table 1, which would give rise most frequently to disruptive incidents in the normal classroom. Problem behaviours within the Personality Disorder class may give rise to disruption

although the frequency of incidents is likely to be much less than those involving conduct disordered behaviour. Indeed, personality disorder problems may manifest themselves as a retreat from the class rather than as an intrusion upon the interaction and activity of the group. On the other hand, the teacher may judge it unwise to ignore a crying, timid, or anxious child and may interrupt the class activity to assist, redirect or console such a child. In this way, pupil behaviours rooted in a personality disorder or an immaturity of development may be perceived and acted upon as though disruptive. In general, though, it is the conduct disorder behaviours which are identified as disruptive for, as Quay (1978:9) suggests, "a child ... consistently manifesting these characteristics is almost certain to be at odds with the expectations of most educational settings".

Table I

The Content of Five Classroom Problem Behaviour Classifactory Schemes

Broad Grouping	Problem Behaviour Type	Scheme				
		Kooi and Schutz	Duke	Mattaliano	Rohrkemper and Brophy	Quay
	Physical aggression	+	+	+	+	+
	Peer affinity	+	+	+		
	Attention seeking	+	+	+		+
Conduct	Authority challenge	+	+	+	+	+
Disorder	Dissension	+	+	+		+
	Movement	+			+	
	Plagiarism	+				
	Inattention			+	+	+
	Property destruction					+
	Failure syndome				+	+
	Perfectionist				+	
Personality	Underachiever				+	
Disorder	Low achiever				+	
	Immaturity				+	+
	Social rejected				+	+
	Withdrawn				+	+

Few researchers have set out to observe more than two or three of these pupil "misbehaviours", out of the scores of possibilities. Researchers, for example, have focussed upon pupil talk and out of seat behaviour (e.g. Boistad and Johnson, 1972; Harris and Sherman, 1973; Jones and Miller, 1974; Jones and Eimers, 1975) for these are thought not only to be the most frequently occurring misbehaviours but to account, between them, for the majority of disruptive incidents. Similarly teacher reaction to pupil misbehaviour has been operationalised in observational research within relatively few, of the possible, categories of observation. In the Lavergne (1981) study, for example, three teacher responses, criticism, redirection and praise, were identified within the observation system adopted.

The reasonably simple observation system in the Lavergne (1981) study was employed reliably during live recording. Indeed, observational research into classroom disruption has demonstrated clearly that pupil "misbehaviour" and teacher response to it can be observed validly and reliably. The 'pupil misbehaviour scale' and the 'teacher discipline scale' of the Solomon and Kendall (1975:529) study, for example, in open and traditional classrooms promoted 'coefficients of concordance' between four teams of observers of .57 and .54 respectively. As an additional example, the series of studies of classroom behaviour problems conducted by Becker and Thomas, with a variety of co-workers, employed reliably a live observation instrument coding five classes of the most frequently occurring classroom problem behaviours (Becker, 1967) including gross motor (out of seat) behaviour, noise making, observing and turning to peer, verbalisations, and aggressive behaviour.

No single, consistent single measure of rate of occurrence of disruption is reported in the identified studies so that those who would pursue the question of frequency are forced to make deductions from the evidence that is reported. This is not a straightforward matter, however, as only three of the observation systems (White, 1975; Bossert, 1977; Behnke et al, 1979) reported in the study of disruption were designed so as to monitor rate, even if indirectly. For other studies a variety of tactics can be used to derive a measure. From the Solomon and Kendall (1975) study,

the best that can be achieved, with regard to rate, is a 'least as often as' measure. In the Thomas, Becker and Armstrong (1968), Harris and Sherman (1973) and Jones, Freemouw and Carples (1977) studies the focus on baseline measurement of individual pupil activity, to the exclusion of teacher or peer behaviour, provides information which can be interpreted as indicative of potential but not actual disruption.

A further step, to engender a common time base, was also necessary before a comparative measure for all studies could be computed. As a unit of analysis the lesson is a relatively meaningful event, and the most usual elapsed lesson time, thirty minutes, was employed as the basic time unit and a 'disruption/30 minute' statistic computed for each study. Table 2 lists the occurrence or rate measure for each identified study while indicating the grade and socio economic level of subjects, the lesson type and content, and the variable/s actually measured, if such information was provided in the report of each study. It should be noted that no Australian data could be reported in Table 2; all information is drawn from U.S. classrooms.

Scrutiny of the Table makes it clear that the populations studied in most studies were small. Additionally, no single study was designed in such a way that broad generalisations could be drawn from its reported findings. Nevertheless, as trends may become apparent when findings across a series of studies are viewed, a comparison of the studies is worthwhile. Previously, it has been demonstrated amply that changes in teacher behaviours (Becker, Madsen, Arnold, Thomas, 1967; Madsen, Becker, Thomas, 1968; Thomas, Becker and Armstrong, 1968; Ward and Baker, 1968; Harris and Sherman, 1973; Jones and Muir, 1974: Jones and Eimer, 1975; Berg and Ascione, 1979) contingent upon pupil misbehaviour can effectively reduce that misbehaviour and disruption in the classroom. Are teachers responsible, then, for the rate of occurrence of disruption in the classroom?

Perusal of Table 2 motivated by speculation that it is teachers, rather than pupils, who control rate of disruption, focuses attention on the lack of a consistent relationship between the 'disruption/30 minute' rate and any pupil characteristic or

Table 2

Classroom Disruption Rate per 30 Minutes

Study	SES Level	Grade Level	Lesson Type	Content	Variable Measured	Disruption /30 min
Thomas, Becker Armstrong (968)	Middle	1st (1 class)			Misbehaviour	20.88
Harris and Sherman (1973)		5th (1 class) 6th (1 class)	"seatwork"	Mathematics	Misbehaviour	49.5 (5th) 50.4 (6th)
Solomon and Kendall (1975)	Upper-middle	3rd-4th (open3 classes) 3rd-4th (traditional 3 classes)			Misbehaviour	7.75 (open) 10.00 (Trad)
White (1975)	Middle	1st (7 classes) 2nd (3 classes) 3rd (10 classes) 4th (4 classes) 5th (10 classes) 6th (3 classes)		Mathematics reading science social studies	Managerial disapproval	11.1 (1st) 12.9 (2nd) 8.1 (3rd) 13.2 (4th) 10.2 (5th) 10.2 (6th)
Bossert (1977)	Middle	3rd-4th	recitation "seatwork" multi-task free activity organisation		Desists	5.76 3.78 2.47 1.95 6.69
Jones Freemouw Carples (1977)	Lower	1st-2nd-3rd 4th-5th (7 classes)	"seatwork"	Mathematics	Misbehaviour	36.5
Behnke et al (1979)		K-1st-2nd 3rd			Disruption	20.7

context variable. Middle SES pupils, for example, are found in classrooms with rates of disruption as low as 1.95 disruptions/30 minutes or as high as 20.88 disruptions/30 minutes. Seatwork as an instructional setting, as another example, may be accompanied by little disruption, as low as 3.78 disruptions/30 minute, or a great deal, as high as 50.4 disruptions/30 minutes. Admittedly many other presage or context variables need to be considered in relationship to disruption. Self-esteem of pupils, prior achievement, or pupil expectancy, may, amongst other variables, have a role in the occurrence of disruption. These have not been canvassed in the studies cited in Table 2 above. Teacher responsibility cannot be dismissed on the evidence, or lack of it, in the studies reported.

The possibility that disruption may occur differentially in relation to the instructional setting is an intriguing one, canvassed recently by Rosenshine and Berliner (1976:8). Basing their recommendations upon the findings of the Stallings and Kaskowitz (1974) and Soar (1973) studies of primary grade Follow Through classrooms Rosenshine and Berliner pointed to the need for adult supervision of pupil activities in Primary classrooms and claimed that "when teachers are working with one or two children, they are unable to provide supervision for the remaining children". The result of this, they claimed, was less engagement of pupils in learning activities and, by inference, greater transgression of classroom rules. A little later in the same article Rosenshine and Berliner (1976:15) claimed, "There is a great need for descriptive studies of teachers who obtain high academic engaged time in different settings". Large groups and whole class activities are to be preferred as the usual grouping pattern if we accept the arguments they presented.

In the Bossert (1977) study, cited in Table 2, "seat-work" ("tasks done independently or in small groups" with a focus upon "worksheets, tests, assignments") activities were reported as occurring for about one quarter of class time in four classrooms observed. Teacher desisting of rule violations occurred (approximately) less than four times per thirty minutes, a rate lower than that Bossert observed in

whole class lessons. The observed rate of disruption in two other studies, Harris and Sherman (1973) and Jones, Freemouw and Carples (1977), was much greater during "seatwork", being in both cases well above the mean rate for studies cited. Evidence with regard to disruption during class time when the teacher is interacting with individuals is equivocal; further investigation of such ecological effects seems particularly necessary.

A single study, Jones et al (1977) was found to focus on lower-income background pupils and the potential for disruption appeared to be high in the classrooms observed. The original casual observation in Mt Druitt classrooms and discussion with teachers in Mt Druitt schools prompted an interest in the relationship between socio-economic status of pupils and rates of disruption in their classrooms. This relationship appeared to be a worthwhile focus for further systematic study.

Rohrkemper and Brophy (1980 :5) have noted that, "with the exception of certain applications of behaviour modification principles, there has been little research on methods of dealing with problem students, and, in particular, very little research focussing on techniques that may be feasible and effective for the ordinary classroom teacher (i.e. not the school psychologist or other specialist)". This has not stemmed the flow of advice to teachers, exhorting their adoption of a wide variety of, often contradictory, techniques and strategies to control misbehaving pupils ranging from exclusion (George, 1980), to punishment (e.g. Newman, 1980; Seyforth, 1980) or trusting ignoring (Barth, 1972) or permissive freedom (Maslow, 1968). Similarly teachers have been encouraged either to have class rules, expressed in clear, behavioural terms (e.g. ERIC, Spring, 1981) or to adopt minimal or no rules for behaviour (e.g. Unks, 1980).

Studies of disruption, and its control or management, from a behaviourist perspective have shown that the teacher's reprimands and/or praise, and/or ignoring contingent upon pupil disruption can be varied systematically with training (e.g. Becker et al, 1967; Madsen et al, 1968; Thomas et al, 1968; Ward and Baker, 1968;

Broden, Bruce, Mitchell, Carter, Hall, 1971; Hall, Fox, Willard, Goldsmith, Emerson, Owen, Davis and Porcia, 1971; Crossaint, Hall, Hopkins, 1973; Kazden, 1973; Jones and Miller, 1974; Jones and Eimers, 1975; Jones et al 1977). Accompanying planned variation in teacher behaviour have been lowered rates of pupil disruption, increased pupil attention to task and increased pupil productivity, although such gains have been demonstrated only in the short term with little evidence of the longer term effectiveness (Horne, 1980) of manipulation. Instigation of more unusual externally managed classroom contingencies, such as additional 'tokens' or tangibles and 'time-out', have also been shown to modify pupil disruption (e.g. O'Leary, Becker, Evans and Saudargas, 1969; Salzer, Hunt, Ashley, Koriarski and Kramis, 1971).

Investigation of naturally occurring pupil disruption and teacher response has led to description and hypothetical prescription of apparently natural ameliorative events. A series of studies, for example, undertaken under the direction of Anderson, Brophy, Emmer, Evertson, Putnam and Rohrkemper (e.g. Brophy and Putnam, 1978), has led to the espousal of a certain view of the 'able' elementary teacher, able to minimise disruption. These researchers view such a teacher as one who "punished less, (is) more supportive, more reassuring, used more symbolic rewards, more likely to use contracts thus involving students in their own behaviour change" (Rohrkemper and Brophy, 1980:5). Less effective teachers, in whose classrooms disruption was observed to be more frequent, were seen to be "more punitive, less supportive of students ... more distanced from the students, more action centred, and less verbal".

Behnke et al (1979), in another study, observed teachers and pupils in eight classrooms (K-3rd) on nine occasions in a six week period. Student talk was the most frequently recorded distraction while verbal commands dominated teacher responses. Time lost due to distraction from available instruction time, ranged from 5.7% to 23.7% of total time, with a mean time loss of 11.9% observed. Behnke et al (1979:66) reported that time lost due to distraction as a percentage of time available for instruction, decreased as grade level increased while the teacher's coping techniques

became more directive with older children. The operational definition of directing in this study included questioning, commanding and threatening as coping techniques. Non-verbal teacher coping techniques were commented upon favourably for they were seen to take less time away from instruction time and to present less interruption to the flow of instruction. Behnke et al (1979:66) summarised this work by stating that, "Usually distractors are student generated (89.2 percent of occurrences) and are coped with in an ongoing fashion by the teacher using a verbal coping technique (71.9 percent of occurrences)."

A further set of influential studies were those conducted under the leadership of Jacob Kounin (see, for example, Kounin, 1967). In a series of studies beginning in the middle fifties, Kounin and his supporters identified the desist ("the teacher's attempt to handle a classroom misbehaviour") and investigated desist qualities and effects. By 1970, Kounin had become disillusioned with the desist as a vehicle for worthwhile research and reported (p70) "the techniques of dealing with misbehaviour, as such, are not significant determinants of how well or poorly children behave in classrooms, or with how successful a teacher is in preventing one child's misbehaviour from contaging others." Kounin had observed the effects of desist qualities such as 'firmness', 'clarity', and 'roughness' as well as the 'ripple' effect, or the impact of a teacher desist on the behaviour of children who witness the event although not themselves the target.

Following upon a set of observational studies, White (1975:371) hypothesised that desists, termed 'disapprovals' in that research, are "in themselves reinforcing to teachers". White came to this understanding following observations suggesting that "disapprovals often terminate misbehaviour immediately (although often temporarily) so that teachers are rewarded immediately in their role as classroom manager, even though their use of disapproval ... is not likely to decrease behaviour in the long run".

From these observational studies it would seem that the long-term effectiveness of the teacher's response to pupil disruption, the desist, in decreasing

pupil misbehaviour may depend to a relatively small extent upon its systematic use and successfully aligned contingency and even less upon its harshness or clarity although these may be important for short-term effectiveness. Success may depend more upon inclusion of desisting in a broader set of management techniques.

Apart from those behavioural studies, cited above, in which behaviour modification techniques for managing disruption were introduced to teachers through inservice activities, seven additional reports of inservice assistance were identified. The strategies employed in promoting change in teacher behaviours as a response to pupil disruption reported in this literature ranged from the apparently unsophisticated and economically cheap to complex, lengthy and apparently economically expensive interventions. All reported success in modifying teacher behaviours in the desired direction.

The simplest approach was that adopted by Harris and Sherman (1973) who reported a fifteen minute meeting with each teacher. The content of these discussions was not identified. Such simple cueing of behaviours already present in the teacher's behavioural repertoire may, it is suspected, underlie the apparent success of the more complex 'inservice' activities reported in other studies cited here (and, it may be suspected again, in much preservice or inservice teacher education activity generally). Two studies report a single intervention strategy; Cooper, Thomson and Baer (1970) employed feedback to the cooperating teachers whilst Ringert (1973) arranged for 'a token helper' to model management behaviours. Two further studies described a combination of three training techniques; Cossairt, Hall and Hopkins (1973) combined feedback with instructions and praise while Jones and Eimer (1975) accompanied feedback with role playing and modelling. Two years later, the package of activities designed by Jones and Eimer was employed in a study (Jones, Fremouw and Carples, 1977) which demonstrated that teachers who had received initial training from the researchers were able to train three other teachers in the selected management techniques, thus both reducing the cost of the training and indicating

that the inservice activity could become self supporting within a school or system. Hall et al (1971), in the final study identified, reported 'formal practicum training' in management without providing a detailed description of the content or approach of that training.

Clearly, then, teachers can change their management strategies in the classroom, given more or less assistance, and such changes have been observed to be accompanied by decreases in disruptive activity initiated by the pupils.

These studies of inservice intervention were carried out typically with volunteer teachers who appeared to believe that greater skill in managing and minimising disruption would prove beneficial. Experienced teachers may (as much as or more than, preservice teacher trainees) be disturbed and concerned by classroom misbehaviour, even to the extent of suffering poor health. Coates and Thoresen (1976:167) identified "pupil lack of attention as a source of anxiety for experienced teachers". Misbehaviour was noted by Brophy and Putnam (1978:6) as "a primary focus of concern for experienced teachers", by Dunham (1980:36) as resulting "in teachers feeling professional frustration and anxiety and poor health", and, by Rohrkemper and Brophy (1979:4) as the "topic most frequently mentioned by experienced teachers as 'requiring study' ". Apart from teachers judging themselves, and being judged by their peers, against some professional criterion of the quiet, attentive class as the wished-for objective, there is short term evidence, at least, to show that less disruptive classes are also more attentive and more productive. In the longer term, there is little evidence of the impact upon pupils of classroom disruption, as Behnke et al (1979:74) have noted. A single study (Feldhusen, Roeser and Thurstone, 1977) acts to alert us, however, to possible reasons for such importance being placed by teachers upon minimization of disruption for these writers observed that "the nomination of (Grade 3) pupils as most disapproved, aggressive or disruptive accounted for 24% of variance in a social adjustment rating by teachers of the same pupils nine years later".

In recent years, there has been a growing interest in helping children develop techniques enabling them to control their own attending and on-task behaviours in the classroom. Self discipline, or self control, is viewed favourably by all involved in the education of children, being not only seen as an outward sign of the pupil's developing sense of responsibility and maturity but consistent with the goal of promoting independence in the learner. In addition, as self control could enable the pupil to be effective when the teacher is not able to supervise, the pupil's progress may well be enhanced through self control training. The effectiveness of 'self instruction' (e.g. Mischel and Patterson, 1976; Sawin and Parpe, 1979), self-set criteria for evaluation (e.g. Felixbrod and O'Leary, 1974), self-assessment (Broden, Hall and Mitts, 1971: Lovitt, 1973) and self-reinforcement (e.g. Glynn, Thomas and Shee, 1974) has led O'Leary and Dubey (1979:460) to claim "self control procedures are probably as effective as similar, externally imposed procedues". On the other hand, Rosenbaum and Drabman (1979:479) question such a conclusion; they claim that "only a weak form of self control has been demonstrated", pointing out that "every study dealing with self control in the classroom has included external variables prior to or concurrent with the introduction of self control training". The role of certain characteristics of the children involved, such as motivation, attribution of causality, (cf Bugental, Whalen and Henker, 1977) and past history of adherence to self instruction (cf Burron and Bucher, 1978) also appears to be important, so that self control training may not be successful with all children. Instructional programs for implementing self control (e.g. Meichenbaum and Goodman, 1971; Bornstein and Quevillon, 1976) have been shown to effect tasks the same as, or similar to, those employed during the children's training but, almost without exception, fail to generalize to behaviours in the normal classroom setting. Nevertheless, self control is a valued goal, improvements in training programs can be expected as insights into functional elements are gained, and further work in this area may well prove fruitful although training teachers to be better managers seems, at this time, to be the more certain method to minimise pupil misbehaviour.

The original concern for classroom disruption in Mt Druitt primary schools, casually observed and discussed with Mt Druitt school people, led to the review of the research and general literature concerning classroom disruption in the primary school. From these sources the elements of a paradigm guiding research into disruption (Figure 1) can be identified and a set of hypotheses directing the choice of particular variables to be measured in classrooms of the Mt Druitt Longitudinal Study may be deduced.

The studies suggest that:

i) decreases in the rate of classroom disruption may be expected with increases in grade level;

ii) disruption may be related consistently to socio-economic status of pupils' families;

iii) disruption may be related consistently to the pupils' prior academic achievement;

iv) instructional settings may be differentially related to levels of disruption;

v) off-task talk and out-of-seat behaviour may be the two most frequent disruptive activities and account for the majority of disruption;

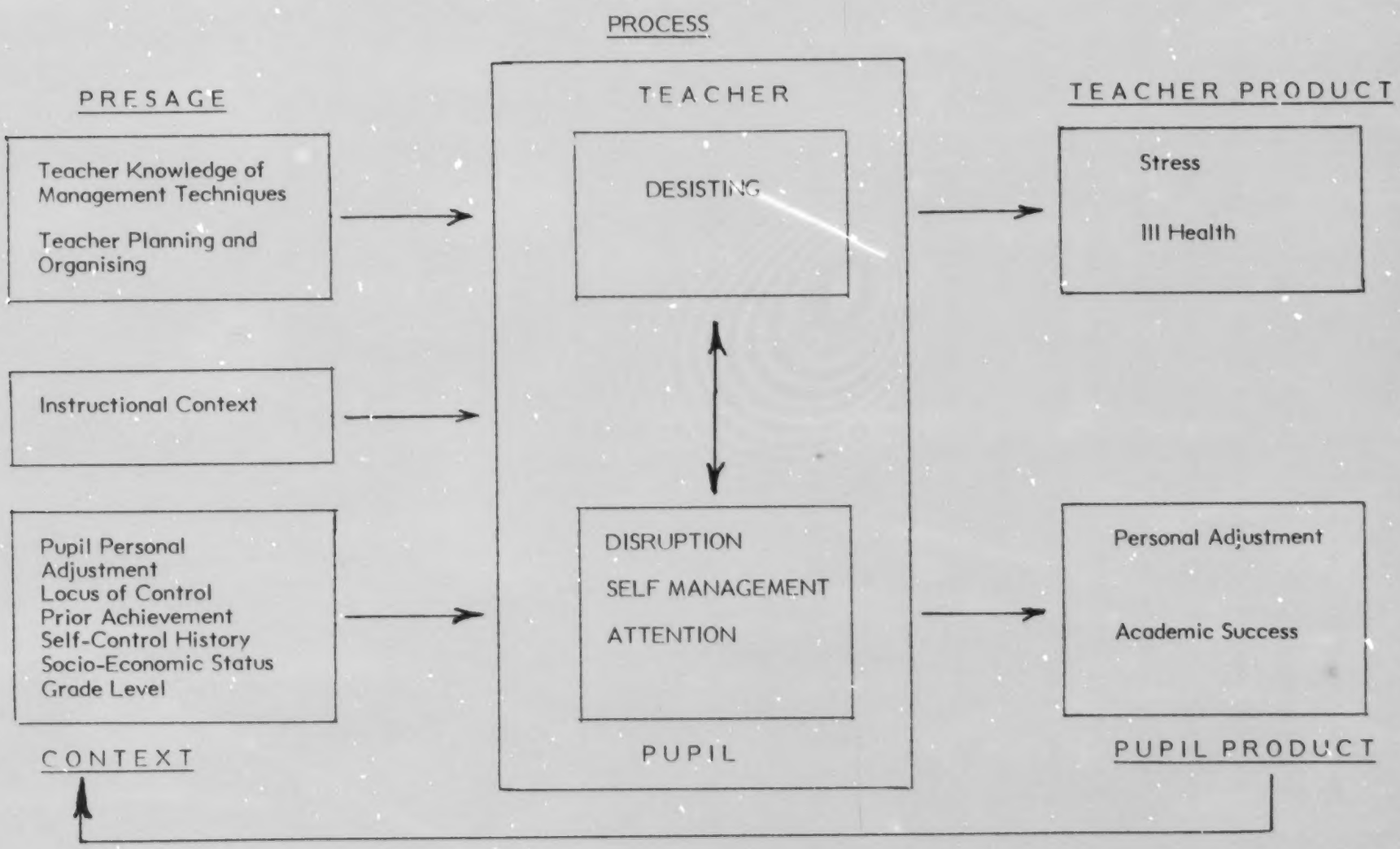
vi) teachers may cope generally with disruption by using direct verbal techniques:

vii) desists are immediately effective;

viii) the same children, given different teachers, may display different levels of disruption.

The steps to be taken for the measurement of all variables necessary to pursue these hypotheses were possible within the context of the Mt Druitt Longitudinal Study's resources, although other intriguing questions with regard to pupil self-control and teacher stress have had to be disregarded at this stage of the Longitudinal Study. Nevertheless, it was believed the potential of the findings from a research program illuminated by the eight hypotheses above should not only provide valuable insights into the dynamics of the school life of the disadvantaged children within Mt Druitt but, in a limited sense it is true, supply tentative answers to questions of interest to all educators.

A PARADIGM FOR RESEARCH INTO CLASSROOM DISRUPTION



The Observation Instruments

The review of the research literature dealing with classroom disruption did not identify a pre-existing instrument which would enable systematic observation of all variables of interest in the consideration of disruption in the Mt Druitt and Contrast Schools'classrooms. Concerns with instructional context, the pupil initiator/s of the disruptive incident, the nature of the pupil disruption, the nature of the teacher desist and the immediate effect of the desist, the events (or facets) of interest in the present study, were not reflected in pre-existing instruments; at least, not in total. It was clear that an original instrument would need to be developed for the Mt Druitt Longitudinal Study.

Observation in the classroom, discussions with teachers, and the review of the relevant literature led to the development of check lists of possible pupil and teacher behaviour during disruptive incidents. Further observation in a variety of classrooms led to elimination from the lists of rare behaviours, on the basis that establishment of reliable observation would prove most elusive for such categories, and to extension and refinement of the definitions and illustrations of each remaining pupil disruption and teacher desist category. During the training period, with the benefit of additional insights from the three experienced observers undergoing training, some further sharpening of definitional boundaries occurred.

As systematic observation with a broader focus, executed through a version of the Personal Record of School Experience (PROSE) instrument (Medley, 1969), was to occur categories assigned to instructional contexts in PROSE had previously been learnt by the observers. Both for simplicity in observation and as a check on differential rates of disruption in different instructional contexts, through a comparison of disruptive incidents with PROSE records obtained in the same classroom, some PROSE categories were adopted within the disruption monitoring instrument.

As a check on immediate effectiveness of teacher desisting a simple three-fold classification (cessation or lessening of pupil disruptive behaviour, no change discernible in pupil disruptive behaviour, an increase or strengthening of pupil disruptive behaviour) was adopted. Through classroom trialling during preliminary observation this approach was found to be acceptable, problems arising only when the observer could not make a decision from observation, as to which category applied. In such cases the most conservative decision was adopted, the category of no discernible change being assigned and the system was found, in these circumstances, to be reliable. The instrument, named DESIST, after the Kounin usage of the term, is attached as Appendix A.

The Mt Druitt Longitudinal Study adaptation of Medley's (1969) PROSE instrument is included as Appendix B. As a further data source, the instructional context facet categories and the pupil misbehaviour facet categories were placed together to form an instrument, called here the Off-Task Scan. This instrument was employed so as to produce a 'snapshot' of the class activities, giving a detailed count of all pupil off-task behaviour category by category at a single point of observation (say, within one minute). The Instructional Context in which the pupil behaviour was occurring was recorded. Off-Task Scan gave a record of potential disruptive incidents at one point; it provided a record of all pupil initiated transgression of rules for classroom behaviour. Off-Task Scan is attached as Appendix C.

Three experienced observers were trained, over a period of fifteen days, until such time as satisfactory inter-observer reliability had been established for both the PROSE and the two disruption instruments. Initially, training time was spent in discussion and memorisation of all categories. This was followed by a short period of three days observing videotaped excerpts of actual classroom interaction, chosen from a set of available tapes, specifically because the majority of categories were illustrated on the tapes. Time was then spent observing, singly, in pairs, or as a group of four, live classroom interaction. Inter-observer reliability was accepted as reaching a satisfactory level when 80% agreement or better between each of the six possible pairs of observers was reached on at least three consecutive periods of

observation. Reliability was re-established, at least at the same level, prior to commencement of observation in the second year of the Study.

The Observation System

Given the DESIST, PROSE and Off-Task Scan instruments and four trained observers, a schedule of observation for 1981 was developed. Observation of disruption would be carried out by at least two observers on at least two days (i.e. at least one day each) in each of the observed classrooms, for a minimum of at least four observation occasions per day. DESIST was designed to produce a reliable time sample of actual disruptive incidents, i.e. as disruptive incidents occurred, they were noted by the assignment of one category for each of the six facets of disruption covered by the instrument. A five minute time period was adopted as the basic unit of observation; any disruptive incident which was observed during this period was recorded, the number of incidents being limited, hypothetically, only by the teacher's ability to deal continuously with disruption for the five minute period and the pupils' rule transgressions.

The five minute observation periods were dispersed throughout the morning observation following each fifteen minute period of PROSE observation so that, generally,at least two DESIST periods occurred prior to morning recess and at least two in the following period prior to lunch. PROSE observation of each target child took place for an elapsed period of five minutes with three target children being observed in succession of five minute periods in one observation period. PROSE viewing produced at least one hour of data each day with the instructional context noted once every twenty-five seconds during observation. The Off-Task Scan observation occurred prior to the PROSE recording. Each complete observation period comprised:

one period of approximately one minute of Off-Task Scan observation;

three by five minute periods of PROSE observation;

and, finally, a five minute DESIST observation.

In 1982 a qualitative observation study of selected classrooms was conducted although DESIST systematic observation was conducted in all but four of the 32 classrooms. This systematic observation was carried out by two observers who visited each classroom for a morning, thus, at least eight DESIST observations were completed (four by each observer), in a period of two separate mornings of observation.

Subjects

Within the population available to the Mt Druitt Longitudinal Study, children were spread across five schools within the Mt Druitt district and three schools located elsewhere within the Sydney greater metropolitan area. All Mt Druitt schools had been identified by the Australian Schools Commission for special additional funding as a 'disadvantaged' school. The poor average performance of the children upon tests of educational achievement, the presence of Australian aboriginal children and single parent family children as a greater proportion of the Mt Druitt schools' population than normally found in Australian schools were partly responsible for the identification of the schools as disadvantaged. For two of the Mt Druitt schools the formal identification as a 'disadvantaged' school was withdrawn in the second year of the Study. None of the three other schools had ever been identified as disadvantaged in a similar way.

The occupation of the employed fathers of the children in the study, categorised according to the sixteen category scheme suggested by Broom, Duncan-Jones, Lancaster Jones and McDonnell (1973) is shown in Table 3.

The Mt Druitt fathers occupy positions the general pattern of which is significantly different from those occupied by the Contrast School fathers (= 27.462, df = 12, p .01) holding employment, as they do, far more frequently in 'blue-collar' work as skilled tradesmen or unskilled assistants or labourers than the fathers in Contrast schools. The exceptions to this generalisation are a group of fathers at the inner-city, lower socio-economic background contrast school, who also find employment in unskilled or labouring activities.

Table 3
Occupational Status of Employed Fathers for Mt Druitt and Contrast Schools

Occupational Status Category	Mt Druitt Fathers (%)	Contrast School Fathers (%)
1	0.4	18.8
2		
3	3.7	12.3
4	6.0	22.1
5		
6		
7	10.1	11.7
8	2.6	6.5
9	28.7	7.8
10	3.0	1.9
11	14.9	5.8
12	13.1	2.6
13	4.1	3.9
14	2.6	0.6
15	0.4	1.2
16	9.7	5.8

The contrasts between the parental and family background of the pupils of the two sets of schools are further illustrated in the following table drawn from responses to the 1981 family questionnaire of the Mt Druitt Longitudinal Study.

Table 4
Characteristics of Parents and Familiies of Mt Druitt and Contrast Schools Children:1981

Characteristics of Respondents	Mt Druitt %	Contrast %
Single parent families	18.2	10.8
Female Parent Social Welfare Recipients	14.2	2.4
Female Parent Part-time employment.	15.6	30.3
Male parent umemployed	9.6	0.5
Male Parent in Professional Position	4.1	31.1
Male Parent in Managerial Position	6.0	22.1
Male Parent in 'blue-collar' position.	79.8	35.1
Female parent education less than School Certificate*.	44.6	21.6
Male Parent education less than School Certificate.	43.6	19.9

(* The School Certificate is the lowest level of education certificated through formal means. It is taken generally at 15/16 years of age).

The two populations are not quite at the extremes in a contrast of groups in Australian society, although clearly there are significant differences between them for each characteristic. Economically, for example, the Mt Druitt families are far more likely to rely on social welfare payments or wages/salary at the lower range of payment common in New South Wales and are far less likely to be able to supplement their income through part-time employment of the female parent than are the Contrast school families. The life styles of the two groups also vary dramatically, although the Table above cannot make this clear. As one striking illustration, the plight of the single, female parent families in Mt Druitt, existing below the poverty line in streets whose every home contains other single parent families, cut off from their parents and former friends by a tyranny of distance and public transport with a fare structure they cannot support, may be contrasted with the Greek/Australian families at an inner-city Contrast school. There is no single parent family in this community of three or four thousand, tied together by their intimate sharing of migration from a single, very small Mediterranean island, by blood relationships, traditions, customs, religion and culture with, what many may consider, a united extended family which supports all families through a formally constituted, cultural and cooperative society.

The achievements of the children from these contrasting families at Mt Druitt and elsewhere have been formally measured on several occasions in 1981 and 1982 within the Mt Druitt Longitudinal Study. Table 5 overleaf illustrates the results of comparisons of achievement test results for pairs of schools for Mathematics in 1981 and 1982.

Clearly the Mt Druitt Schools, nominated here as MtD1, MtD2 and MtD3, obtained relatively different scores in the two years 1981 and 1982, appearing to improve their relative standing across the twelve month period; however, both Contrast School 1 and Contrast School 2 pupils performed significantly better in Maths Achievement tests in 1981 than did any Mt Druitt School group and better than all but

one Mt Druitt school in 1982.

Table 5

Pairs of Schools Sig. Diff. at the .05 Level: Mathematics Achievement, 1981 and 1982

Group	MtD1	MtD5	MtD3	MtD4	MtD2	C3	C1	C2
MtD1								
MtD5								
MtD3	*							
MtD4	*							
MtD2	*							
C3	**	**	*					
C1	**	**	**	**	*			
C2	**	**	**	**	**			

(Analysis of variance showed school to be a significant factor at the .05 level and Scheffe a posteriori contrasts indicated the above significant differences between schools).
(** Contrast significantly different at the .05 level, 1981 and 1982.
* Contrast significantly different at the .05 level, 1981 only)

Pupils at Contrast School 3, the inner-city school with some pupils from backgrounds closer to the Mt Druitt pupils for several criteria, such as 'blue-collar' employment of parents, performed significantly better than did pupils at three Mt Druitt schools in 1981, and better than pupils at two of the Mt Druitt schools in 1982. On these results there is some blurring of the distinctions between the pupils of Contrast School 3 and Mt Druitt School pupils; this is a problem which is repeated when achievement on language tests is compared. All differences between the Contrast School pupils' achievements and those of the Mt Druitt children are extremely significant in an educational sense. While the tables below display those pairs of schools, identified by the Scheffe procedure, whose mean language achievement scores are significantly different the absolute size of the difference is conveyed when it is realised that the mean score of the lowest scoring Mt Druitt group, for word knowledge, is at least two standard deviations below the mean of Contrast School 1.

Table 6

Pairs of Schools Sig. Diff. at the .05 Level: ACER Word Knowledge Achievement, 1981 and 1982

Group	MtD1	MtD4	MtD5	MtD2	MtD3	C3	C1	C2
MtD1								
MtD4								
MtD5								
MtD2								
MtD3								
C3	*	*						
C1	**	**	**	**				
C2	**	**	**	**	**			

(** Pairs of Schools significantly different at the .05 level, 1981 and 1982
* Pairs of Schools significantly different at the .05 level, 1982 only)

Table 7

Pairs of Schools Sig. Diff. at the .05 Level: ACER Comprehension Achievement, 1981 and 1982

Group	MtD1	MtD5	MtD3	MtD4	MtD2	C3	C1	C2
MtD1								
MtD5								
MtD3								
MtD4								
MtD2								
C3	*	*						
C1	**	**	**	**	**			
C2	**	**	**	**	**			

(** Pairs of Schools significantly different at the .05 level, 1981 and 1982
* Pairs of Schools significantly different at the .05 level, 1982 only.)

As with the results for mathematics achievement, it can be observed that pupils at Contrast Schools 1 and 2 are significantly different from all Mt Druitt School pupils in their more advanced ability to comprehend written materials and to recognise individual words. On the results of the three sets of achievement test results reported here, it may be confidently asserted that the Mt Druitt pupils are significantly poorer in their basic skills achievement (on the three tests reported) than

are the pupils of Contrast Schools 1 and 2: later contrasts of classroom behaviour measures will be made for classrooms from these schools which contain pupils with significantly different patterns of achievement. This claim cannot be asserted with a certainty of confidence for the comparison between Contrast School 3 pupils and the Mt Druitt pupils. As with mathematics achievement, Contrast 3 pupils differ from some Mt Druitt pupils but certainly not all and the distinction between these Contrast School 3 pupils and Mt Druitt pupils cannot be sustained totally. The problem presented for later contrasts of behavioural measures will be met by including data from Contrast School 3 classrooms only when it is clear that differences in achievement are of no importance for the particular contrasts: Contrast School 3 will figure in some but not all statistical contrasts. This decision will result in some comparisons being made for small samples; comment on the statistical implications of this situation is made later, in the introduction to the results section.

In 1981, as an extensive systematic observation of each class in the sample was to be conducted through use of the PROSE, DESIST and Off-Task Scan instruments, it was not possible within the time available to include all classes in the observed sample. A selection of seventeen classes was made from those available to give at least two classrooms at each of the eight schools; an additional class was chosen from the nine 3rd grade classes at the largest of the Mt Druitt schools. An attempt was made in 1981 to include: all 'A' stream classes from those schools which streamed their pupils; a relatively equal number of male and female teachers, and, a representation of all levels of the age range of teacher ages represented in the total sample.

In 1982, only the DESIST instrument was employed (in that year extensive qualitative rather than systematic quantitative observation was conducted) and all but four classes of the total sample of thirty two Grade 4 classes were observed. Classes were avoided in 1982 at the request of four teachers who had been observed in the previous year; they indicated their concern and anxiety, produced, they believed,

through the stress of observation. The effect of observation upon the activities of the pupils and teachers within observed classrooms has been a 'question-mark' in observation studies for, at worst, such effects may so seriously distort the observed activities that the sample obtained may not represent a realistic sample of the class activities. In the present study, all teachers reported a belief that the observation had been conducted in as unobtrusive a manner as seemed possible; that pupil behaviour differed little, if at all, from the pupils' usual behaviour, and that teacher behaviour, although initially distorted, settled relatively soon into typical behaviour patterns. None of the observers reported a belief that serious interference had occurred in the natural flow or style of classroom activities.

The characteristics of the teachers and classes in the classrooms observed in 1981 and 1982 are displayed in the following table.

Table 8

Characteristics of Teachers and Classes: Observation Sample 1981 and 1982

Characteristic		1981	1982
Teacher Gender:	M	10	14
	F	7	14
Teacher Age:	25 years or less	4	7
	26-30	5	9
	31 or More	8	12**
School:	Mt Druitt	11	19
	Contrast	6	9
Stream:	"A"*	8	11
	Other	9	17
Total		17	28

(* All Contrast School 1 classes were included as 'A' stream classes on the thesis that measured achievement was superior for all pupils compared to all Mt Druitt pupils in other than 'A' stream Mt Druitt classes.

** Contrast Schools 1 and 2 are over represented in the older age level)

Although there are greater numbers of classes and teachers situated in Mt Druitt schools and greater numbers of slightly older teachers at Contrast Schools 1 and 2, comparisons can be made within the limited confidence held for any findings from the study.

Results

All results in the following section have been ordered in the same sequence as that employed for the set of eight hypotheses identified earlier.

Statistical computation has been carried out through the programs available within the S.P.S.S. (Nie, Hall, Hull, Steinbrenner and Bout, 1975) computer package. Having regard to the nature of the samples within this study, with some tests of significance being carried out with groups of ten classes or less, it is best to regard any findings as tentative and suggestive of later hypotheses. No attempt should be made to generalise the results beyond the schools from which the samples are drawn. Nevertheless, a significance level of .05 will be accepted as indicative of a reasonable probability that samples are drawn from different populations, so as to maximise identification of useful hypotheses for later investigation.

a) Disruptive Incidents, Rates of Occurrence

The review of studies reporting a rate of occurrence of disruption statistic directly, or providing data from which it was possible to deduce a rate measure, had not led to identification of a most common rate. Indeed, there seemed little consistency across studies with rates as low as 1.95 disruptions/30 minutes and as high as 50.4 disruptions/30 minutes being reported. Additionally, there were relatively few studies reporting rates of disruption so that identification of pupil, teacher, class, or school characteristics consistently related to rates of disruption was impossible. The mean rate of occurrence of disruption computed from the eighteen rates identified was 15.67 disruptions/30 minutes, although only five of the eighteen identified rates were greater than that rate. Elimination of two outlying high rates, identified in a single study (Harris and Sherman, 1973), reduced the mean rate to 11.39 disruptions/30 minutes. Such calculations gave little guidance, however, as to what might be expected when classes in the Longitudinal Study were observed. The rates of occurrence of disruption observed in 1981 and 1982 are reported in the Table overleaf.

As the table indicates, the range of rates of occurrence of disruption in 1981 ran from a lowest rate of 7.5 disruptions/30 minutes to a greatest rate of 25.99 disruptions/30 minutes, while in 1982, a lower limit, 1 disruption/30 minutes, and a higher limit, 37 disruptions/30 minutes, were registered. Compared to disruption rates recorded in primary classes in the U.S.A., these New South Wales classrooms displayed both an absolutely lower limit, 1.0 disruption/30 minutes, to the occurrence range, and, in both years, a lower mean occurrence of disruption rate. In several of the U.S.A. studies, teachers had been nominated by their School Principals for inclusion in the study because the Principal believed the teacher would benefit, ie, several studies may have included teachers believed to be poor managers. None of the teachers included in the observation reported here were identified spontaneously by their Principals as being poor managers - although casual observation by the study research staff, prior to undertaking systematic observation, had indicated that a range of managerial skills was likely to be represented in the behaviour of teachers observed. Principals were not asked to comment on the managerial skills of any of their teachers in this study. There is no reason to expect that, as a group, teachers were any less, or any more skilful as classroom managers than would be the case for New South Wales Primary School teachers generally and the probability is that a representative range of disruptive incidents and teacher ability to handle disruption were captured in this study. There is, however, no way of being certain that this was so.

The first set of comparisons displayed in Table 9, are the calculations from the data of the rate of occurrence statistic, the disruption/30 minutes measure, for 1981 and 1982. The concern here is with the expectation of differential rates of disruptive incidents in classrooms at different grade levels, with higher grades expected to display less frequent disruptive incidents. As far as could be ascertained from the literature review results tabulated below are the first derived from a longitudinal study of disruption, all others being findings in cross-sectional research.

Table 9

Rates of Disruption/30 Minutes: All Classes Observed 1981 and 1982

1981 Class *	1	2	5	8	9	10	12	13	16	20	22	25	26	29	30	31	33			$\bar{X}$
1981 D/30	11.25	22.5	15.69	7.99	14.25	9.6	23.25	25.98	7.5	12.66	12.00	6.00	15.00	12.00	9.33	12.00	19.09			13.89
1982 D/30 **	6.00			24.00	22.00	7.00	24.00					12.00	12.00					6.0	18.0	
1982 Class	4			8	9	11	12					25	26					1	2	
1981 Class																				
1981 D/30																				
1982 D/30	12.0	19.0	37.0	34.0	12.0	23.0	12.0	14.0	12.0	12.0	24.0	10.8	6.0	12.0	8.0	12.0	1.0	6.0	29.0	15.24
1982 Class	3	5	6	7	10	13	15	16	18	19	20	24	27	28	29	30	31	32	34	

(* Class ID's are for Longitudinal Study purposes only.

** Disruption/30 minute Rates are aligned for classes comprised of 85% same pupils.)

Two comparisons are reported: the first includes all schools while the second draws data from Mt Druitt schools only.

Table 10

Comparison of Disruption/30 Minute Rates for 1981 and 1982

Year	Schools	N	$\overline{X}$	Variance	SD	t	df*	SigLev
1981	All	17	14.715	37.858	6.153	-.23	42.18	0.817
1982	All	28	15.239	79.503	8.916			
1981	Mt Druitt	11	16.27	29.964	5.474	-.52	26.99	0.609
1982	Mt Druitt	18	17.66	80.623	8.979			

(* separate variances assumed)

As the Table indicates for both comparisons the greater rate of disruption occurs in the second year of observation although in neither case is there a significant difference between occurrence of disruptive incidents in 1981 compared to 1982. The results here do not support the expectation that disruptive incidents become rarer with the increasing grade levels of the pupils.

b) The Relationship of Disruption and Disadvantage:

The second set of comparisons calculated from the observation data was concerned with the relationship between disadvantage and disruption and the question of differential rates of occurrence of disruptive incidents in the disadvantaged, Mt Druitt classrooms compared to those non-disadvantaged classrooms located elsewhere. A test of difference between rates, with the class as the unit of analysis, was performed via the S.P.S.S. program (Nie et al, 1975). Results are tabulated below.

Table 11

Comparison of Disruption/30 Minute Rates for Mt Druitt and Other Classes, 1981 and 1982

Year	Classes	N	$\overline{X}$	SD	t	df*	SigLev
1981	Mt Druitt	11	14.79	6.39	1.09	15	.3
	Contrast	6	11.24	6.43			
1982	Mt Druitt	15	17.1933	9.468	1.78	23	.08
	Contrast	10	10.88	7.306			

(* separate variances assumed)

In neither year is the comparison found to be statistically significant (at the p .05 level or better) although the result for 1982 approaches significance.

The expectation that children from a lower socio-economic status background would exhibit higher rates of disruption is not supported. This, of course, immediately brings into question claims of a causal nature; that, as one example, the claim that higher levels of psychological disturbance suffered by lower socio-economic status pupils cause higher rates of classroom disruption must be viewed with suspicion until grounded in evidence.

c) The Relationship Between Prior Academic Achievement and Disruption:

The next set of contrasts is concerned with the relationship between academic achievement and differential rates of classroom disruptive incidents; the expectation derived from the literature was that lower achieving children would display greater levels of disruption. For this contrast classes were divided into two groups across schools. 'A' stream classes, identified within schools by the higher levels of academic achievement of the pupils grouped into them, were contrasted with the 'B' stream and other class groups for the rates of disruption/30 minutes. All classes observed at Contrast School I were, what is known as, parallel, i.e. streaming was not practised as a method of grouping within Grades at this School. Contrast School I pupils' performance in language and mathematics achievement tests were amongst the highest observed; their standardised test performance placed more than three quarters of them in the ninth (highest possible) stanine. All but a few pupils from Contrast School I would be placed in an 'A' stream class if they were to live in Mt Druitt and attend school there. In the calculations which follow all Contrast School classes have been treated as if 'A' stream.

From these calculations the achievement level of pupils on entry does appear to be related differentially to the level of disruption present in the classroom.

An additional way of viewing disruption is to consider the frequency of periods of instruction free of interruption; it may be the case, for example, that patterns of

Table 12

Comparison of Disruption Rates for 'A' Stream and Other Classes, 1981 and 1982

Year	Classes	N	$\overline{X}$	Variance	SD	t	df*	SigLev
1981	'A'	8	10.41	25.478	3. 3	2.61	15	.02
	Other	9	18.44	30.928	6.15			
1982	'A'	10	9.81	35.524	4.795	2.45	21	.02
	Other	13	17.969	87.925	9.614			

(* separate variances assumed)

occurrence of disruption may differ across classes, with classes with the same disruption/30 minute rate having different patterns of disruption. More-or-less concentration of disruption in instruction time with different patterns of crowding or dispersal of disruption may occur. When 'A' stream classes are compared with 'B' stream or other classes for periods of observation (five minute samples) free of disruption no significant difference is found between them (for the 1982 data, t = 1.76, df = 15, $p < .63$, n = 15). The observation of disruptive incidents in both 'A' stream and other classes indicates that, while significantly greater disruption incidents occur in non 'A' stream classes, with lower ability pupils, the spread of the disruption observed in classrooms of each type over the observation periods was similar. To restate the finding, in any five minute period, the observer was as likely to view a disruptive incident in an 'A' stream class as in any other class, although significantly more frequent disruption would be observed in the non 'A' stream classes in each period of observation.

d) Disruption in various instructional settings:

All three observation instruments, DESIST, PROSE and Off-Task Scan, provided data to use in reflecting upon relationships between settings for teaching/learning and the occurrence of disruptive incidents. It will be remembered that Rosenshine and Berliner (1976) had suggested off task pupil behaviours might be more common when the teacher was interacting with individual pupils or small groups and less common when large groups or whole class settings were being utilised. From that prediction

they went on to recommend the use of larger group settings in the instruction of mathematics and reading.

In the first comparison the occurrence of disruptive incidents (from DESIST observation) in settings in which teachers were interacting with individual pupils, or with small, large or whole class groups, or were not interacting with pupils at all was compared to a baseline measure for the occurrence of these grouping arrangements, drawn from PROSE observation of Third Grade classrooms in 1981. At least two full mornings of PROSE observation had occurred in each of the seventeen classrooms to produce a total of (approx) forty six hours of data. While it cannot be maintained from an evidential basis that such an amount of observation gave a reliable estimate of actual grouping for instruction in Third Grade, it is an impressive amount of observation and gives a feeling of confidence in the measures as a baseline. Given the PROSE measures, expectancies for DESIST counts of disruptive incidents in each setting were derived. Actual counts were then compared with expected counts and a chi-square statistic computed; results are displayed in the Table below.

Table 13

Comparison of Instructional Context Categories Distribution for PROSE and DESIST

	Pupils Interacting with Teacher								
	1	2	3-6	7+	All	None	χ^2	df	p
DESIST count	56	4	28	18	238	2	134.99	5	.001
Expectancies from PROSE	113.5	4.5	10.7	12.8	161.2	43.3			

The disruptive incident count derived from DESIST observation differs significantly from the count suggested by PROSE observation of occurrence of instructional settings. A note of warning, prior to attempts to interpret the finding, should be made in that PROSE observation necessitated a categorisation of instructional setting, defined by the number of pupils observed to be interacting with the teacher, every 25 seconds whilst DESIST observation categorisation occurred at

the instant the disruptive incident was noticed by the observer. PROSE observation was meant to note the instructional setting at the last instant of the 25 second observation period; there should be little difference, if any , in the two methods of observing. Given that interchangeability is accepted, it should be noted that disruptive incidents appear to have occurred more frequently than expected in whole class instruction settings and less frequently than expected in individual teacher/pupil interaction settings. Two interpretations of this finding might be suggested: either there is more disruption initiated by pupils in whole class settings, and the teacher is responding to this, or there are more disruptive incidents because the teacher is more aware of and/or more keen to control the possibiy greater impact of pupil transgression of rules in the more public whole class setting.

Data derived from Off-Task Scan observation helps to illuminate those suggestions.

Table 14

Mean Number of Students off-task in the Individual and Whole class Teacher/Pupil Interaction Settings: 1981

Class ID		1	2	5	8	9	10	12	16	18	20
Interaction	Indiv	5.05	5.33	6.43	2.5	6.4	1.86	5.1	0.5	3.25	9.6
Context	Whole	4.00	3.22	3.15	4.2	1.00	5.59	1.6	4.14	5.31	3.42

Class ID		22	25	26	29	30	31	33
Interaction	Indiv	8.0	6.6	5.13	5.2	5.28	2.66	7.28
Context	Whole	3.42	3.0	3.61	2.05	3.93	2.16	3.00

There was no difference between the Mt Druitt and the Contrast School classrooms with regard to the mean number of students observed to be off-task; the disadvantaged classrooms had no greater observed level of off-task pupil behaviour ($t = -0.1419$, $df = 15$, p = n.s.).

Classes identified as 8,12,16 and 18 are the only classes, of the seventeen observed, in which the mean number of pupils observed to be off-task in the individual

setting was less than the mean number off-task in the whole-class setting. If pupil initiation of rule transgression was the sole determinant of the occurrence of disruptive incidents then a greater number of incidents might be expected in the individual pupil/teacher interaction setting. As has been shown, for this sample this was not the case. It has already been speculated that as the whole class/teacher interaction setting is a more public one, it may be either the case that the teacher is more aware of transgression or that misbehaviour has more serious consequences for a greater number of pupils in such settings. Some insight into this speculation and the mechanics of classroom activity could be gained from data obtained from PROSE observation.

PROSE provided a means of producing measures of the proportion of the total observation for a variety of instructional settings in the Third Grade classrooms observed in 1981. Teacher interaction with individual pupils, in small, large or whole class groups was categorised, and absence of interaction also noted. In addition, a measure of the amount of observed on-task and off-task pupil behaviour was provided. The definition of on-task behaviour has been set deliberately here to encompass not only academic engagement in teacher approved learning tasks but waiting and transition activity defined as appropriate behaviour by the teacher while no transgression of class rules by the pupils was occurring. It will be realised that it is not academic engaged time that is under discussion here but pupil adherence to teacher sanctioned activity without rule breaking. In the table overleaf are displayed the proportions of observed on-task pupil activity in the individual and whole class/pupil teacher interaction settings as well as for the occasions when interaction was not occurring. (Small group and large group interaction was a rare event in all 1981 classrooms).

The definition of on-task pupil behaviour employed here was a liberal one but even so, the most striking aspects of the Table displayed initially are the high levels of on-task pupil behaviour observed, the relative similarity across most classes at the

Grade level and the consistency across settings. There is generally, however, a greater level of on-task behaviour in the whole class setting than is observed in the individual pupil/teacher interaction context as Rosenshine and Berliner (1976) predicted from their analysis of the Follow Through studies. For only one class is it the case that on-task behaviour in the individual setting was greater than that recorded in the whole class setting. What may be surprising is the observation of greater levels of recorded on-task behaviour in the no interaction setting for nine classrooms compared to the level when the teacher was observed interacting with a single pupil. Such a finding immediately points to characteristics within other contextual elements, the task itself, the challenge of the activity, the accountability system built-in to seat-work activity, for example, and within the pupils, such as interest in repetitious activities generally encountered in seatwork, as necessary for consideration if it is to be understood how disruption can be relatively infrequent in no interaction settings.

Table 15

Proportion of On-Task Pupil Behaviour Observed in Three Interactional Settings: PROSE Observation 1981

Class	Individual	Whole Class	None
1	83.8	95.0	85.7
2	78.1	95.6	86.4
5	78.7	86.6	81.0
8	94.6	86.8	90.6
9	82.6	88.0	90.3
10	85.6	90.2	73.0
12	81.8	88.3	100.0
16	89.3	97.6	93.9
18	74.7	87.6	81.5
20	64.7	82.3	59.0
22	78.3	88.5	70.6
25	74.5	85.7	73.5
26	80.5	85.1	78.3
29	89.1	96.0	97.7
30	86.6	93.4	86.7
31	70.6	83.9	80.8
33	77.7	90.7	88.9
X	80.3	88.9	84.0

In an effort to tie the separate findings together, it could be said that: pupils initiate greater transgression of rules in individual pupil/teacher interaction settings in basic skills instruction, and they are more frequently off-task in such settings, although teachers respond proportionally more frequently to rule transgression in whole class settings and more frequent disruptive incidents are recorded in that setting than in any other. There were less frequent pupil initiations of rule transgression and more teacher response to those transgressions in whole class settings.

Pupil off-task behaviour was observed to be greater in the individual setting and teacher supervision of pupil behaviour was greater in the whole class setting, as Rosenshine and Berliner (1976:14) had predicted.

e) Pupil misbehaviour:

Previous studies had identified a variety of pupil behaviours which transgressed class rules although much of the work concerned with eliminating or controlling misbehaviour focussed upon pupil 'call-outs' and 'out-of-seat' behaviour. There was evidence suggesting that these two pupil behaviours were the most frequently disruptive and accounted for the majority of pupil initiated behaviour which gave rise to disruptive incidents. DESIST derived observation data provided a measure of pupil behaviours eliciting a teacher control response, indicating, therefore, relative frequencies and magnitudes of occurrence of pupil initiated disruptive behaviour.

Table 16 overleaf displays information gathered in the Third Grade Classrooms in 1981.

In these classrooms, calling-out behaviour was observed to elicit a teacher response to the extent that it was the second most frequent pupil behaviour figuring in a disruptive incident, while out-of-seat behaviour was the third most frequently observed pupil misbehaviour in a disruptive incident. These two behaviours accounted for 27.4% of all pupil behaviours which were desisted. Thus, while the misbehaviours were noticed frequently, they did not account for the majority of pupil initiated desisted behaviour nor did they occur as the first and second most frequent. Pupil off-task talk to peers was the most frequently observed desisted pupil behaviour, accounting for more than one third of the disruptive incidents.

Table 16

Desisted Pupil off-task Behaviours: Proportion of Total Desists By Class and By sample, 1981

Class	Off Task Talk 1	Calling out 2	Listening Watch Off Task 3	Verbal Aggression 4	Physical Aggression 5	Arguing 6	Play 7	Tantrum 8	Sulking 9	Crying 10	Passive 11	Out of Seat 12	Alternative Task 13	Tardy 14
1	43	21	22									7		7
2	38	14	3		3	3	3					10	14	10
5	49		22				7					13	4	4
8	20						20					60		
9	39	28										22		11
10	57	29	14											
12	17	21	3				17				3	21	17	
16	25		50										50	
18	66						33							
20	31	19	6				19						19	6
22	42	17					17					17	7	
25	44	22	11				11					11		
26		45	9				9					9	19	9
29	57	7					7					14	7	7
30	45	18	9				18					9		
31	46	11	7				21					4	7	
33	38	12	6		3		18					15	9	
Total	38.3	15.0	8.3		0.75	0.75	11.7				0.75	12.4	8.6	3.8
Rank	1	2	6		8	8	4				8	3	5	7

Observation in Fourth Grade classes in 1982 produced the data contained in the next table overleaf.

There is much similarity regarding pupil misbehaviours desisted in the Third and Fourth Grades. Again, the two most frequently observed desisted behaviours were pupil off-task talk to peers and call-outs. While out-of-seat behaviour did not account for as large a proportion of desisted misbehaviour as it had in Third Grade, and it had slipped two ranks in a comparison of frequency of desisting, it was observed relatively frequently in most classrooms.

The pupil behaviours included in categories for the facet of misbehaviour could be further divided into meaningful, smaller groups or facets of behaviour. One way to do this would be to group behaviours seen as 'slightly deviant' and others thought of as 'seriously deviant'. Characteristics underlying such a distinction would be the likelihood of the deviant behaviour causing interference to large numbers, or relatively few, of the misbehaving pupil's class peers, for example, or the level of intrusion of the behaviour into the lesson. Talk off-task, listening or watching off-task, playing, sulking, crying, alternative task involvement, tardiness, or passive behaviour might be considered mildy deviant, in that they might affect few pupils other than the pupil initiator. (This is not to deny that pupil sulking and crying in primary grades may be symptons of serious underlying personality problems). On the other hand, pupil call-outs, verbal and physical aggression, arguing with the teacher, tantrums and out-of-seat behaviours could be considered, on the criteria set up here, more seriously deviant. In 1981, the mildy deviant behaviours figured in 71.1% of disruptive incidents, while in the Fourth Grade, a year later they still accounted for 57.1% of disruptive incidents. This decrease in the percentage of disruptive incidents accounted for by mildy deviant behaviour, and the consequent growth in serious misbehaviour in disruptive incidents may be a cause for some concern.

Table 17

Desisted Pupil off-task Behaviour: Proportion of Total Desists By Class and by Sample, 1982

Class	Off Task Talk 1	Calling Out 2	Listening Watch Off task 3	Verbal Aggression 4	Physical Aggression 5	Arguing 6	Play 7	Tantrum 8	Sulking 9	Crying 10	Passive 11	Out of Seat 12	Alternative Task 13	Tardy 14
1		33	17									50		
2	33		7			7	33					13		1
3	43		14								14			29
4		60					20							20
5	48	8					24					12		8
6	11	30	3			5	14					8	30	
7	26	31				11	14					9	6	3
8	50	13										13	25	
9	36	36	9								9	9		
10	17	33										50		
11	43						29					14	14	
12	38	25	13									25		
13	44	8	8			4	15					4	4	15
15							50						50	
16	71												29	
18	23	23	8			8	8						31	
19			13				13					25	13	38
20	39	32										10	19	
24	111						22					56		11
25	17	17	50				17							
26		50										17	17	17
27	25						50				25			
28	13	38					38					13		
29	20	20	20								20		20	
30	17	50	17										17	
31		100												
32	33	17									17		33	
34	14	55			3		7					10	10	
Total	25	22.3	4.1		0.3	2.4	11.4				1.4	10.3	10.9	4.3
Rank	1	2	7		10	8	3				9	5	4	6

As it had been suggested, both by Mt Druitt teachers and within the literature, that low-income children present greater difficulties in the classroom a comparison of the seriousness of the misbehaviour noted in Mt Druitt classrooms and that noted elsewhere was carried out by computation of a one-way chi-square statistic. Classes were divided into three groups according to their position in the lowest, greatest or middle third of the total sample stratified by mean occurrence of mild or seriously deviant behaviour per off-task scan. Two comparisons, one for mild, and one for serious deviance, were computed (with the Yates Correction for small n's being applied).

Table 18

Mildly Deviant Misbehaviour: Average Number of Pupils Observed per Off Task Scan by Class: Third Grade, 1981

Average Number Observed	Mt Druitt Classes	Contrast Classes	Group		p
0 - 3	3	3	Lowest Third		
3.6 - 4.0	5	1	Middle Third	1.5	.47
4.1 - 5.5	3	2	Highest Third		

While no significant difference was found for mild misbehaviour when Mt Druitt pupils were compared to the Contrast School pupils, it could remain that differences would be found for more serious misbehaviour. The results of the comparison for serious deviances were reported in the next Table.

Table 19

Seriously Deviant Misbehaviour
Average Number of Pupils Observed per off-task Scan by Class
Third Grade, 1981

Average Number Observed	Mt Druitt Classes	Contrast Classes	Group		p
0 - .26	3	3	Lowest Third	3.86	.15
.27 - .43	3	3	Middle Third		
.44 - 1.48	5	0	Highest Third		

Again, there was no significant difference in the initiation of serious misbehaviour by Mt Druitt, disadvantaged pupils than by their Third Grade peers in Contrasting Schools. The Mt Druitt pupils were as likely as Contrast pupils to be found in classrooms in which relatively little serious misbehaviour was observed.

It might well be noted, at this stage, that serious deviancy was observed in all classrooms at lower limits of initiation than was true for mildly deviant behaviour. Indeed, some categories of serious misbehaviour almost never did occur. A child displaying a temper tantrum was observed on only one occasion, there was very little verbal aggression and only slightly more physical aggression noted. Sulking and crying behaviours were noted from only six children. When it is considered that observers were present in the Third Grade classrooms on thirty four days then serious deviancy, apart from 'call-outs' and 'out-of-seat' could be considered a rarity. The predominance of those two categories amongst the serious deviancy behaviours observed may, if relfected in classrooms elsewhere, account for the attention they have received in the intervention literature.

It is difficult to find in the observation data a basis for the claims of greater difficulty in working with disadvantaged children that have been noted in conversations and in reading. While these matters will be taken up again in discussion a little later attention is drawn here to the observation data in three classrooms, all in Mt Druitt.

Table 20
Mean Occurrence of Pupil off-task Behaviours by Off-Task Scan for Three Classes: 1981

Class	Talk off Task	Call-Out	List Watch OTask	Verb Aggr ession	Phys Aggr ession	Argue	Play	Tan-trum	Sulk	Cry	Pass	Out of Seat	Total
12	1.30	0.30	1.77	0.07	0.13	0.10	0.50		0.10	0.07	0.07	0.87	5.27
20	1.50	0.09	2.73		0.05		1.09	0.05	0.09		0.05	0.09	5.77
22	1.44	0.19	1.63	0.04	0.04	0.04	0.93		0.04	0.07	0.04	0.11	4.44

These three classrooms are of particular interest because of the large number of categories of misbehaviour completed by the observers: the mean number checked for all classrooms was six categories of behaviour and the three classes identified in the Table, with at least nine checked, had the highest number of categories employed in coding behaviour. The fact that some serious misbehaviours occur at all may be of some consequence, given their relative rarity. That is to say given that a tantrum was observed on only one occasion in all the observation time may make such behaviour assume greater consequence than is given to other more frequent behaviours. Similarly, pupil arguing with teacher, verbal and physical aggression, sulking and crying, although infrequent, may be remembered strongly by the observer, or by the teacher. It could be that such behaviours became generalised to pupils and situations, even though such generalisations do not appear warranted by the data reported here.

To sum up: pupil initiated misbehaviour was most often mildly deviant in all classrooms, and no difference in the seriousness of pupil misbehaviour was noted for Mt Druitt pupils compared to those in Contrast schools. Pupil off-task talk and 'call-outs' were the two most frequent pupil disruptive behaviours, accounting in 1981 for the majority of all pupil initiated behaviour desisted by teachers.

f) **Teacher Desist Techniques:**

It had earlier been noted that when Behnke et al (1979) compared teacher response to classroom distractions across the four grade levels (k-1-2-3) within their study those teachers instructing older children were notable for greater use of questions, commands and threats as coping techniques compared to teachers of younger pupils. In 1981, the children in the Mt Druitt Longitudinal Study were situated in Third Grade, and in 1982 were in the Fourth Grade and it was of some interest to compare the desist techniques of the teachers in the present study with those in Behnke et al (1979) study; the predominance of direct control through largely verbal means in Behnke et al (1979) study alerted the present writer to a similar possibility.

Table 21
Teacher Desist Techniques: Proportion of Total Desists by Teacher, 1981

Class	Guide to Alter 1	Ask for Reason 2	Indirect 3	Command 4	Withdraw Privilege 5	Withdraw Attention 6	Record 7	Fair Play 8	Appeal Cooper. 9	Pupil Decision 10	Consultation 11	Sarcasm 12	Threaten 13	Send out 14	Send to Adult 15	Physical Punish 16	Wait 17	Focus 18	Aware 19
1	7		7	79															7
2	23	7	10	10	7				3			23	3	3					10
5	16	3	19	27	6		16		3	3									7
8	40		40	20															
9	22		6	56	6														11
10	13		38	38															13
12	23		27	27			10					3	13	3					7
16			25				25						25					25	
18	33																		67
20	33		11	33															22
22	25		8	17								8	8	8				8	17
25*																			
26	10		15	20							20								35
29	29		14	21										14					21
30	17		25	17	8		8					8	8					8	
31	25		29	18	7								7					4	11
33	9	3	21	32	3			3	3			9		3			6	3	6
Total	19.7	1.2	17.4	30.1	3.2		3.5	0.9	1.7	1.7		4.1	2.6	0.9			0.6	1.4	11.0
Rank	2	12	3	1	7		6	13	9	9		5	8	13			14	11	4

(* Teacher 25 did not Desist pupil misbehaviour)

The results of clasroom observation of teacher desist techniques are displayed in the tables immediately following. The proportions reported were computed from the raw data for the 'HOW' facet of the DESIST instrument. Verbal desist techniques include categories 1,2,3,4,8,9,10,11,12, 13 and parts of 14 and 15 which non verbal include categories 5,6,7,14,15,16,17,18 and 19. Direct verbal contact comparable to that technique in the Behnke et al study, would consist of the amalgamation of categories 2,4, and 13.

For these observed Third Grade teachers verbal desist techniques accounted for three quarters of all desists, with the direct verbal desists (2,4,13) being observed in just over 32% of all disruptive incidents categorised. The command (4) was the most frequently observed (30.1%) single desist technique, as it had been in the Behnke et al study, although the teachers' frequent use (19.7%) of the desist technique of verbally guiding the misbehaving child to an appropriate task incompatible with the off-task behaviour was noteworthy as was the indirect category (3), which was third most frequently observed desist technique. Teachers, for example, who displayed this latter technique drew pupils' attention back to task and appropriate involvement through use of a task oriented question, a request for assistance or an oblique comment in an indirect approach to desisting the pupil. Taken together the guide to alternative category and the indirect category accounted for 37.1% of all desists. It is true to say that teacher verbal desisting predominated in these teachers' response to pupil transgression of rules, just as it had in the Behnke et al study. However, the Third Grade teachers observed here employed indirect verbal desists to a greater degree than they did direct verbal desists, quite unlike the Behnke et al study teacher subjects.

The pattern of DESIST category proportions for the Fourth Grade teachers included in the 1982 information conformed (roughly) to that pattern we have seen established for the Third Grade. Verbal techniques predominated again accounting for 79.6% of desists coded, with the direct verbal desists (2,4,13) being observed in 30.9% of all disruptive incidents. In both the Third and Fourth Grade direct verbal techniques accounted for 4/10 of all verbal desists. Again, the command was the

Table 22
Teacher Desist Techniques: Proportion of Total Desists, by Teacher
1982

Class	Guide to Alter 1	Ask for Reason 2	Indirect 3	Command 4	Withdraw Privilege 5	Withdraw Attention 6	Record 7	Fair Play 8	Appeal Cooper. 9	Pupil Decision 10	Consultation 11	Sarcasm 12	Threaten 13	Send out 14	Send to Adult 15	Physical Punishment 16	Wait 17	Focus 18	Aware 19
1	17			50															33
2	7		33	27									13					7	13
3	43			14								14						14	14
4	60			20															20
5	36		8	16														4	36
6	19			41	8								16		5			3	8
7	9		9	46	3				6			6	11	3				3	6
8	25			25					13										38
9	18		18	18															45
10				100															
11	14		29	29	14														14
12				25															75
13	15		19	22					4				15						26
15	25		25		50														
16	14		14	29				14											29
18	23		31	23						15									8
19	13		38	13															38
20	32	3	3	45				3	6				6						
24	11		11	56															22
25	33		50	17															
26	17		17	50															17
27	50											50							
28	38		25	13								13							13
29	40		20	20				20											
30			33	17															50
31				100															
32			33	33						17			17						
34	7	3	52	10					3	14								3	7
Total	19.1	0.6	16.5	30.3	2.1			0.9	2.1	2.1		1.8	5.6	0.3	0.6			1.8	16.8
Rank	2	12	4	1	6			11	6	6		9	5	14	12			9	3

single most frequently observed desist (30%) and the indirect verbal desist techniques (1,3) accounting for 35.6% of all desists coded, were more frequently observed than more direct verbal desists. A slightly greater proportion of desists observed in the Fourth Grade classrooms were more direct than was the case in Third Grade.

A comparison of the desist types observed in Mt Druitt clasrooms with those recorded elsewhere indicated that the Contrast School teachers employed a significantly greater use of the indirect desist category (almost three times greater proportionally) while Mt Druitt teachers more frequently used a command to desist ($t = 22.9812$, $df = 3$, $p < .001$).

Overall, the use of desist techniques of a pleasantly benign nature was observed. Not only was it the case in both the Third Grade and Fourth Grade that indirect desists were employed extensively, so that pupils were brought back on-task with minimum 'fuss', but little, if any, use of threats or sarcasm was noted. No physical punishment of any kind was observed, although all schools retained the right to use corporal punishment when pupil misbehaviour was considered serious. At the same time there was very little involvement of pupils in the management of misbehaviour, although a case might be made out for the efficacy of such involvement in the encouragement of moral growth within the pupils. Could it be that the teachers' desire is to manage misbehaviour efficiently and effectively, even at the expense of promoting opportunities for pupil growth in other than basic skills competence?

Teacher desisting might be most generally described as verbal, with slightly greater use of indirect desists compared to direct verbal desists, and teacher centred, in that management is not shared by the teacher with either pupils or other adults.

Teacher Desisting Effects:

g) It has been noticed that teachers' desisting of pupil misbehaviours "often terminate misbehaviour (although often temporarily)" (White 1975:371) although, paradoxically, the use of disapproval by the teacher "is not likely to decrease

inappropriate behaviour in the long run". The data from the present study goes some way to support these suggestions. In Table 23 below the first of the claims, that concerning the immediate effectiveness of the teacher desist upon the pupil disruptive behaviour,as observed in the classrooms in the present study is illustrated. A three category system coding effectiveness was employed. It may be remembered that disruption after a desist was coded as: ceasing or lessening; having no discernible change; or, strengthening. Table 23 following displays the rate of occurrence of desists and the observed effect of the desist upon the pupil initiated transgression of a class rule towards which the desist was directed, for classes observed in 1981.

For all observed classes, the majority of the teacher desists of pupil disruption was followed by at least a decrease in the strength of the pupil misbehaviour. On no occasion was pupil misbehaviour observed to increase following a desist. In all but five classrooms observers occasionally detected no change in the pupil misbehaviour to which a teacher desist was directed.

Table 23
Effectiveness of Teacher Desists and Disruption/30 Min Rate: 1981

		Effect			
Teacher	Rate	Lessen %	Strengthen %	No Change %	School
1	11.25	78.37	0	21.43	MtD 1
2	22.50	96.7	0	3.3	MtD 1
5	15.69	90.6	0	9.4	MtD 2
8	7.99	100.0	0	0	MtD3
9	14.25	83.3	0	16.7	MtD3
10	9.6	100.0	0	0	MtD4
12	23.25	90.3	0	7.7	MtD4
16	25.99	92.3	0	7.7	MtD4
18	7.5	100.0	0	0	MtD5
20	12.66	77.8	0	22.2	MtD5
22	12.00	100.0	0	0	MtD5
25	12.00	100.0	0	0	C1
26	15.00	88.9	0	11.1	C1
29	12.00	92.9	0	7.1	C2
30	9.33	91.7	0	8.3	C2
31	12.00	92.6	0	7.4	C3
33	19.00	86.2	0	8.3	C3
$\bar{X}$	13.89	91.86	0	7.8	

For thirteen of the seventeen classrooms observed, however, a teacher desist was followed by at least a decrease in the targeted misbehaviour in 90%, or better, of the disruptive incidents.

Table 24 following, for Fourth Grade teachers, shows that for all but two teachers, most desists were followed by at least a lessening of the disruptive pupil behaviour. In only three classes did the pupil misbehaviour appear to increase, in frequency or intensity, following a teacher desist, and, even so, the frequency of such occasions was quite limited. Over the whole sample of observation, teacher desists were significantly successful in that they were followed by lessening or termination of the pupil misbehaviour on nearly 85% of all desist occasions. In only three of forty five observed classrooms was the teacher desist followed by an increase in pupil misbehaviour.

Table 24

Effectiveness of Teacher Desists and Disruption/30 Min Rate: 1982

		Effect			
Class	Rate	Lessen %	Strengthen %	No change %	School
1	6	100	0	0	Mt D 1
2	18	93	0	7	Mt D 1
3	12	71	0	29	Mt D 1
4	6	84	0	24	Mt D 1
5	19	84	0	16	Mt D 2
6	37	76	0	24	Mt D 2
7	34	69	0	31	Mt D 2
8	24	88	0	13	Mt D 3
9	22	91	0	9	Mt D 3
10	12	50	0	50	Mt D 3
11	7	71	0	29	Mt D 4
12	24	50	0	50	Mt D 4
13	23	85	4	11	Mt D 4
15	12	100	0	0	Mt D 5
16	14	100	0	0	Mt D 5
18	12	92	0	8	Mt D 5
19	12	88	0	13	Mt D 5
20	24	74	0	26	Mt D 5
24	10.8	78	0	22	C1
25	12	100	0	0	C1
26	12	67	0	33	C1
27	6	100	0	0	C1
28	12	88	13	0	C1
29	8	100	0	0	C2
30	12	100	0	0	C2
31	1	100	0	0	C2
32	6	100	0	0	C3
34	29	62	3	34	C3
X	15.24	84.32	0.714	12.5	

The second part of White's (1975:371) claim suggests the hypothesis that a negative relationship could exist between frequency of desisting and decreases in pupil misbehaviour; i.e. it may be expected that teachers who desist more frequently than other teachers also are less effective in decreasing pupil misbehaviour.

In Tables 25 and 26 below, are listed (Pearson product moment) correlation coefficients for the relationships existing between the 'disruption/30 minute' rate and the three levels of observed effectiveness (cessation or decrease, no change, increase) for both 1982 and 1981 data.

Table 25

Correlation Between Disruption Rate and Desist Effectiveness: 1982

1982	Rate	Decrease	No Change
Decrease	-.4904**		
No Change	.0493	-.025	
Increase	.4775**	-.9875**	-.1308

(** p .005)

Table 26

Correlation Between Disruption Rate and Desist Effectiveness: 1981

1981	Rate	Decrease	No Change
Decrease	-.6082**		
No Change	.2249	.0085	
Increase	*		

(* No disruptive behaviour was observed to increase following a desist).

The Tables clearly show that a significant relationship existed in the observation data for both years between the rate of desisting and effectiveness; teachers who desisted more frequently appeared to be less effective in that pupil misbehaviour in their classes was both less likely to decrease following their desist and in 1982, at least more likely to increase following their desist. A[illegible]is of Table 24 does not provide immediate insights into underlying linkages in these [illegible]ationships: teachers whose desisting was followed by increases in pupil misbehaviour had both low rates (12 disruptions/30 minutes) and high rates (23 and 29 disruptions/30 minutes);

teachers with high rates of the no change category (say, greater than 25%) had both low rates of desisting (7 or 13 disruptions/30 minutes) and high rates (34 and 37 disruptions/30 minutes). What is identified by this finding is the possible existence of a 'management' trap as it seems, for some teachers in the sample, the more they managed the more there was to manage.

Observation data gathered in both years, while the children were in Grade 3 and Grade 4, supports White's hypotheses, in that it appeared that teacher desists were, on the whole, immediately effective, but that in some classes higher rates of desisting were associated with increases in pupil misbehaviour (1982) or with lower levels of observed lessening or cessation of the pupil transgression (1981 and 1982).

I) Teacher responsibility for classroom disruption:

There was much evidence available in the research literature to show that manipulation of teacher managing behaviour was associated with changes in pupil behaviour. Such findings suggest that it may well be possible to observe that the same class group of children, given changes in teachers, may display different rates of disruption; i.e. it may not only be pupil transgression of rules which create disruptive incidents but also teachers' varying ability to ignore or manage such transgressions. In Table 27 the disruptive/30 minute rates for seven classes observed in 1981 and 1982 are listed. Attention here has been directed to disruption/30 minute rate for classes comprised of at least 85% of pupils in common, over the two years although they had different teachers in each year.

Table 27
Disruption/30 Minute Rates: Classes Comprised of 85% Common Pupils, 1981, 1982

1981 Class Id	1	8	9	10	12	25	26
1981 D/30	11.25	7.99	14.25	9.6	23.25	6.00	15.00
1982 D/30	6.00	24.00	22.00	7.0	24.00	12.00	12.00
1982 Class ID	4	8	9	11	12	25	26

Computation of a coefficient of correlation (Pearson Product Moment) for the disruption/30 minute rates for the classes across years produced a non-significant coefficient of 0.3417. The implication of the finding is that the relationship between the disruption/30 minute rates across the two years was a chance occurrence, even given the similarity of pupils. Now, the pupils may have been: as disruptive but the teachers in either year were more or less tolerant of disruption; more or less disruptive but reacting to changes in the teacher's management skills and techniques and/or teacher's tolerance level of rule transgression; or, more or less disruptive because of differential levels of pupil initiation of disruption but such behaviour being accompanied by the same intensity of teacher response in both years. Although reliable changes in pupil initiation of disruption across the year cannot be ruled out as an explanation neither can reliable changes in the teacher's ability or unwilligness to manage disruption with one teacher being more or less able or willing than the other. Teacher responsibility for the level of disruption, at least in the sense that they do not employ strategies which would control disruption, cannot be eliminated on this evidence.

SUMMARY

Disadvantaged children:

* are found in classrooms with rates of occurrence of disruptive incidents not significantly different from non-disadvantaged classrooms;
* have rates of observed pupil off-task behaviour not significantly different from that observed in non-disadvantaged classrooms;
* do not differ from non-disadvantaged children in the proportion of pupil initiated misbehaviour thought of as seriously deviant;
* have teachers who employ the command as a desist more frequently than do teachers in non-disadvantaged schools.

Disruptive Incidents:

* the lowest rate of observed disruption was one disruptive incident per 30 minutes;
* the highest rate observed was 37 disruptive incidents per 30 minutes;
* mean rates of disruption were 14.7/30 minutes in 1981, and 15.239/30 minutes in 1982;

* frequency of disruptive incidents was not related to socio-economic status of pupils;

* 'B' and other streamed classes experienced significantly greater rates of disruptive incidents than did 'A' stream classes;

* greater numbers of off-task pupils were observed in the individual pupil/teacher interaction setting, than in other settings;

* the lowest average recorded level of on-task engagement was found for the individual pupil/teacher interaction setting;

* teacher response to pupil disruption was greatest in the whole class setting;

* the most frequently desisted pupil misbehaviour was pupil-to-pupil talk;

* misbehaviour regarded as seriously deviant increased in Fourth Grade compared to Third;

* teacher desists are largely verbal;

* indirect verbal teacher desists predominate;

* teacher desisting was not designed to threaten the pupils' psychological or physical comfort;

* no physical punishment was observed;

* teacher desists are generally successful;

* less than 1% of teacher desists are followed by an increase in pupil misbehaviour;

* teachers in classrooms with high rates of disruption were less effective desisters;

* rates of disruption observed for a group of children in one year were not significantly related to disruption rates for the same group a year later.

DISCUSSION

The failure of the observation reported here to substantiate the expectations which the literature had built up with regard to classroom misbehaviour of disadvantaged pupils came as something of a surprise, although the few researchers who have systematically studied pupil classsroom behaviour have not reported higher levels of disruption in low-income classrooms (e.g. Harvey 1980). The failure to substantiate Mt Druitt teachers' perceptions of their pupils is even more intriguing and

while it is fashionable in some quarters to discount teacher perceptions and explanations of their own classroom behaviour, it would be unwise to dismiss summarily these teachers' claims without investigation. How could the teachers hold opinions which did not match observed reality? Several suggestions arise in the research literature dealing with classroom disruption which would help to explain the apparent paradox, and observation derived from experience with the Mt Druitt schools can also be canvassed.

Harvey's (1980) study of Second Grade low-income classrooms in eight schools situated in a north-western population centre in the U.S. appears a particularly thorough investigation, with twenty days observation in each class. Harvey (1980:311) reported "measures of noisiness, destructiveness, noncompliance, negative physical behaviour, and negative student-peer interaction did not distinguish between low and high income classrooms". A measure of behaviours Harvey called "secondary self-stimulation" did, however, distinguish between the classrooms. These behaviours accompanied other activities Harvey termed "primary behaviours" and were seen by teachers (p.312) "as indicative of anxiety, embarrassment, frustration, boredom, hostility, and even heavy concentration". In the qualitative observation of classrooms in the Mt Druitt Longitudinal Study during 1982 comment was made by observers that secondary self-stimulation was more readily apparent in Mt Druitt classrooms than in Contrast School rooms although no systematic measure of it was taken. Children were noted who ceaselessly rocked the chair, or who drummed pens or pencils on the desk, or who twiddled with their hair as they read or worked, amongst a great many other activities of the same type. Mostly those secondary behaviours did not appear to interfere with the completion of, or attention given to, the children's primary task. It may be that Mt Druitt teachers share the interpretation of secondary self-stimulation apparently held by the teachers in Harvey's study, viewing even attentive children as, somehow, off-task.

Of course, it was not only teachers who perceived higher levels of disruption in Mt Druitt classrooms. Early in 1981 casual observation by the Mt Druitt Longitudinal Study research team had alerted them to the possibility of frequent classroom disruption; the researchers shared the teachers' perceptions of the behaviour of the Mt Druitt children. It might be the case that the early observation, although casual, and the teachers' expressions of belief of greater classroom disruption gathered early in 1981 were both right at that time .

Mt Druitt children may have been more disruptive early in their Third Grade year. N.S.W. schools have been structured in the past so that a managerial and physical gap existed between the first three Grades (K-1-2), known as Infants, and the later four (3-4-5-6), known as Primary. This arrangement applied in all the schools in the Longitudinal Study. There is a somewhat shared opinion that the Primary School in N.S.W. is a more formal educational setting than the Infants' School. Mt Druitt children expressed such an opinion when they were interviewed early in 1981, reporting a belief that different behaviour would be required of them following their graduation from the Infants to the "big" school. It may be that the Primary teachers found the behaviour of the Third Grade children unacceptable early in the year and worked systematically and successfully to change the pupils' inappropriate behaviours. This could explain the findings of no difference in the observed behviour of disadvantaged children when compared to non-disadvantaged pupils at the end of the second term and the beginning of the third term (of a three term year) in 1981 and 1982.

Schools had been seen to take deliberate steps later in 1981 and 1982 to increase academic engagement and decrease rule transgression by their pupils. For Mt Druitt a "bandwaggon" effect for an "educational" innovation imported from the South Australian Department of Education had been noted. Each morning the school dcy began, in three of the five Mt Druitt Schools, with a 15-20 minute period of physical activity. Teachers reported the adaption of this strategy as a means of "decreasing pupil aggression", or "helping the children's concentration", or "tiring them out a little

so they don't jump around as much in class" (private conversations with teachers) and all teachers questioned seemed convinced that the physical activity was "helping the children's school work".

A concerted effort had also been made by Primary Schools in Mt Druitt to decrease rule transgressions by shedding the most noteworthy of their misbehaving children; two special "acting-out" classes had been organised in centrally located schools and pupils from surrounding schools were sent to them on the recommendation of the School Counsellor and the School Principal. While no children from the Mt Druitt Longitudinal Study had been sent to such a class, their existence indicated something of the official view of misbehaviour held in the Mt Druitt area. None of the non Mt Druitt schools had access to special "acting-out" withdrawal classes.

Perhaps the non existence of these special classes ensured that several particularly "naughty" children located in non Mt Druitt schools were retained within their local School and attended to by the normal teaching staff. The behaviour of a particular child enrolled at the higher socio-economic status near-city suburban school comes particularly to mind in this context. This boy seemed at times typical of the child with personality deficits pictured by those holding a 'clinical view', being quite out-of-control of the teacher, and lacking self control. While required work was often completed a constant and loud stream of commentary and jingles accompanied it, out-of-seat behaviour was frequent, running and jumping about often seen and verbal aggression towards other pupils noted. At Mt Druitt this boy may well have been a candidate for removal to the withdrawal class. At his present school, the teacher accepted his behaviour with a benign complacency, explaining to an observer that she had a special warmth of feeling for the child because she admired the well developed sense of humour he possessed. His peers appeared to accept, and readily excuse, his behaviour; it did not noticeably distract them from their work.

This ability of the majority of children to continue to attend to learning tasks despite class disruption was observed in all classrooms. While no systematic record of

the individual pupil's rate of initiation of disruption or off-task behaviour was maintained in either year, all observers reported a strong impression that disruptive behaviour which led to disruptive incidents was initiated by relatively few, five or six only, of the pupils in any class. Most children persisted with learning tasks with occasional short term non-serious off-task behaviour, such as observation of other pupils or quiet chatting with a nearby classmate, noted. If this belief was substantially accurate as a picture of pupil behaviour, it implies that teacher action to establish greater control of all pupils, or to further promote the already existing high levels of pupil self control, would not be overly difficult or too distractive of teacher attention to other of the variety of compelling teacher tasks. Our Special Education colleagues, who have demonstrated an admirable ability to teach pupils with no past record of attending behaviour to pay attention to learning tasks within a remarkably short period, come to mind in this regard.

Perhaps it is the case that these teachers who are notable in the sample observed for the relative low rates of occurrence of disruptive incidents and/or the low rates of observed pupil off-task behaviour have identified the small number of most likely disruption initiators and pay special, if subtle, attention to them. Such teachers, whom Kounin (197)) recognises elsewhere as "with-it", appeared to exert little effort in maintaining a sense of peace, order and purpose in their classrooms. Two Mt Druitt teachers who presided over calm, busy, and apparently happy classrooms, gave the appearance of relaxed professionals, enjoying the children and their interaction with them, and enjoying also the fulfilment of the daily or longer plans they had in mind for the class.

The first of these two (known in the Study as 'Teacher 1'), shared jokes, laughter and songs with the pupils at times of transition from one learning activity to another ensuring that 'momentum' was maintained. In the classroom of the second transition between activities was a progressive event with pupils who had completed a prior task leaving their seats to join an ever-growing group of children, seated on the

floor, playing number, spelling or word games. These games were entirely pupil managed; they involved both competitive and co-operative elements and, as such, required frequent pupil manaagement decisions. Observers never noted an occasion when the teacher, who maintained awareness of the pupil's activity, had to interfere in the smooth, quiet but hectic course of these games. At a time when the majority of pupils were gaming rather than being employed at their desk, the teacher would step in to move the class on to the next learning activity, thus maintaining a smooth flow and momentum.

Both teachers were notable also for the lengthy periods they spent with individual pupils or without interacting with any pupils. Perhaps such teacher non-involvement communicates by implication a sense of trust in the ability of pupils to attend to their tasks. In the individual, or whole class interaction setting, or in the no interaction setting, the first teacher achieved rates of on-task pupil activity of 83.8%, 95% and 85.7% respectively, while the second achieved rates of 94.6%, 86.8% and 90.6%, producing mean rates of on-task activity of 88.17% and 90.67%. None of the teachers in the Mt Druitt Longitudinal Study sample expected pupils to display nothing but on-task activity, reporting expectations ranging from 75% to 90% of pupil activity as being on-task. Both of the teachers cited above achieved on-task pupil activity rates at the highest point of the expected range. We shall return to a consideration of pupil activity when the teacher was not involved with the pupils a little later.

In striking contrast to those teachers above, was a teacher located in a nearby Mt Druitt School with on-task rates of 64.7%, 82.3%, and 59.0% to produce a mean on-task rate of 68.67%. The numbers of pupils observed off-task at any one time were also high, in this class an average of 9.66 pupils were observed off-task in the individual pupil/teacher interaction context, and an average of 5.31 off-task pupils observed in the whole class setting. While these rates were the highest observed in any class, the disruption/30 minute rate of 12.66/30 minutes, although high, was not the greatest suggesting that her supervision techniques might not be optimal.

Although this teacher was concerned to increase the pupil attention to task levels, she was keen also to identify positive aspects of the pupils' behaviour and expressed what appeared to observers, equal amounts of praise and negative comment. It may be, however, that this teacher was not 'with-it'.

Several aspects of her behaviour suggested this to be the case. Once involved with an individual pupil little supervision of others was in evidence; the pupils seemed to know and take advantage of this. Perhaps all that is required in such situations is for rapid scanning by the teacher of the remainder of the class at appropriate intervals. The first of the male teachers cited above not only displayed that scanning behaviour but continually surprised pupils by naming pupils who were quietly off-task without appearing ever to have looked in their direction. The Sydney Micro Teaching Skills (Turney and Cairns, 1976), package is amongst the few examples of systematic attempts to introduce the pre-service teacher education student to the skills and techniques of classroom management - a strangely neglected responsibility in Australian teacher education institutions - and includes exercises in "with-it" ness. Attempts to work in an in-service mode with such materials may help practising teachers improve this aspect of their management techniques.

The behaviour of one pupil in this teacher's class is particularly relevant to the present discussion, This boy's behaviour had led the teacher to institute attempts to isolate him as much as possible from his peers. He was seated at a single desk pushed into the remotest corner of the room, separated from the nearest of the other pupils by several yards of space. He had, however, perfected several techniques which allowed him to interact at will with any or all of his fellows without arousing the teacher's awareness at any time. His non-verbal communication, including a variety of bumps, bangs, and coughs, was highly developed but more extraordinary was his mastery of a particular verbal skill. He had perfected voice production at a frequency of which the teacher appeared never to be aware. He produced an unusual, slightly distorted voice, which, none-the-less, all other pupils understood and reacted to. His

communications were penetrating, reaching the furthest points of the room some 60 feet beyond him but the teacher remained oblivious to this carry-on, even when the boy was directing others in a series of co-operative off-task pupil activities deliberately designed to annoy the teacher. The observer was forced to conclude that the teacher, despite her enthusiasm and interest, was just not 'with-it'.

The data derived via observation employing the DESIST instrument revealed a pattern of classroom disruption for each of the instructional contexts coded for each teacher. This information was extended by the complementary data derived from PROSE observation and, thus, enabled an identification to be made of those classes/teachers who diverged from the general pattern in the sample observed. Overall, it may be remembered, the greatest mean level (88.9%) of on-task pupil activity was achieved in the whole class setting, as Rosenshine & Berliner had predicted. The mean on-task pupil activity achieved in the no pupil/teacher interaction context was next highest, at 84%, which the lowest level was recorded in the individual pupil/teacher interaction setting, at 80.3%.

1981 Classes identified earlier as 1 and 16 achieved higher rates of on-task engagement than the mean level in all three settings. Some comment was made above regarding class 1, with the teacher sharing jokes and songs with the pupils. The other class (16) was also a Mt Druitt group with a younger, female teacher notable both for a high level of commitment to the children of Mt Druitt, and to the cognitive development and extension of her class. On first viewing this teacher's style had appeared teacher-centred, formal, cold and demanding. Later in the year, when the systematic observation was taking place, it was noted that a great deal of subtle teacher support and interest was being conveyed to the children; they were responding with enthusiasm and creativity to the intellectual demands being placed upon them, and they were responding in a formal, "well mannered" way to the behavioural expectations conveyed to them by a young teacher who had obviously captured the children's enthusiasm and regard. There was little about their class which matched

the picture of disadvantaged children as painted in the literature. In the same Mt Druitt school class 20 was located. There all three pupil on-task activity levels were lower than the mean level reported for the sample; class 20 being the single class with lower levels in all three settings. Other classes had lower levels in one or two but not three groups. Class 33, a Contrast School group, had a significantly lower level of on-task activity in the individual pupil/teacher interaction setting, while Class 10, a Mt Druitt group, had a significantly lower level compared to the mean for the sample and to the respectably high levels in other settings in the same class, for the individual pupil/teacher interaction setting.

Speculation that in-service strategies to assist teachers raise the level of on-task activity amongst their pupils may need to be somewhat tailored to the individual teacher's pattern of strengths and weaknesses seems justified by results such as those. At a time when in-service teacher education activities are being curtailed in N.S.W. schools for financial reasons, and when teacher apathy with regard to in-service activity appears to be growing, the production of an in-service classroom management skills package which could be employed in a flexible and responsive fashion is called for. Alongside such planned experiences it might well be useful also to organise a program of informal visits and discussions between teachers on the same grade in the same schools.

At Mt Druitt School 1, for example, in the room alongside the professional but relaxed and jovial younger male teacher, identified previously as teacher 1, was located a young, female teacher. While the on-task pupil activity levels in this room were quite reasonable, with the class ranked at eighth amongst the on-task levels achieved within the 17 classes in the sample, the disruption rate/30 minutes was third highest in 1981, at 22.5 disruptions/30 minutes. Of greater concern, however, was the observation in this class of some of the few examples of pupil physical aggression towards peers and the only example in 1981 of pupil 'arguing-back' with the teacher. Additionally, the teacher desist record revealed the greatest use of teacher sarcasm in

the sample observed, and employment of threats, banishment of pupils from the room during lessons, and withdrawal of privileges already earned by the pupils, as teacher desist techniques. While no rating of the happiness of the pupils in classroom activity was made in this study, each observer commented, subsequent to an observation session in this room, both that the children did not warrant the treatment they were receiving from their teacher (the measures substantiated that), and that the children appeared inhibited and unhappy. It was no surprise to the study team involved in interviewing parents, in another initiative of the Longitudinal Study, that several instances of parent visits to the school to both complain to the Principal of this teacher's belittlement of individual children and to request a teacher change in attitude and approach to the children, were spontaneously invoked by parents. Speculation of the salutory effect that a series of visits between classrooms might produce for this teacher, and subsequently for the children with whom she deals, appears warranted.,

The finding that rates of pupil off-task behaviour recorded in the no-interaction context were lower than those recorded when the teacher was interacting with individual pupils require some explanation. During 1982, the research team spent considerable time in Fourth Grade clasrooms engaged in an qualitative observation of the class activity. Pupil motivation for learning activities was a primary observation target. In conversations with Professor Maurice Galton of Leicester University, the Director of the Observation Research and Classroom Learning Evaluation (ORACLE) study, it had been pointed out that Primary aged children in Leicestershire had seemed to be most motivated by repetitious tasks performed individually by pupils at their desks - the ubiquitous "seatwork". Notes such as the following were made, in practically all the classrooms observed in the Mt Druitt Study, it was observed that "no sounds audible, children intently, busily engaged in completing duplicated sheet with 27 algorisms, little off-task, occasional pupil glances around room, cars passing by outside clearly heard".

Davis and McKnight (1976:216) comment that "to restrict a mathematics curriculum to a sequence of undemanding tasks, done individually in workbooks ... leads to a quiet and orderly classroom" just as had been seen in the classrooms observed in the Mt Druitt Longitudinal Study. These authors go on to suggest, however, that instructional strategies of this sort imply, "limitations on the mathematical content that will be learned ... if the subject is genuinely profound, most students may be unable to learn it from independent reading". It is best to assume, perhaps, that teachers set repetitious "seat-work" tasks for children not only because they are motivating and produce quiet attentiveness but also because teachers understand the pupils' needs for overlearning through successful practice. The necessity to supplement "seat-work" with discussion and physical manipulation of concrete materials in mathematics instruction, is, it is to be hoped, accepted by all primary grade teachers.

Pupils, at these intermediate grade levels in Primary, did appear to find satisfaction in the work itself. Elements of seatwork tasks, such as their bounded nature, or the probability that most pupils could manage high levels of success on work for which the difficulty level had been set by the class teacher, or the clarity of the requirements of such tasks, may be posed as reasons for the children's high level of engagement. The tasks may have promoted a sense of security for the pupils. The possibility for the teacher to hold the individual pupil accountable for the amount and success of the work completed was also high for such activities, and should also be considered in attempts to explain the children's attention. Both intrinsic and extrinsic factors may be at play in producing on-task engagement.

Whatever the cause of the behaviour, it was also noted by observers that it was at times when children were engaged in seatwork that teachers took advantage of the pupils' display of attention to complete teacher tasks which could not be attended to when teacher/pupil interaction was necessary. Teachers marked exercise books or other completed pupil work, they produced materials for later lessons, completed

clerical tasks which all teachers are required to do, wrote reports to parents, edited class or school magazines, etc., etc. It was noted that such tasks did engage teachers' concentrated attention, so that teacher scanning of pupil activity appeared to drop in rate of occurrence. As a consequence, their rate of desisting may also have dropped. However, pupil activity did not appear to warrant high levels of desisting at seatwork times.

Part of the message which may be communicated to pupils who observe that their teacher is not attending to them may be an impression that the teacher expects the pupils to remain on-task and to act responsibly, "getting on with the task", in such circumstances. In a sense, the teacher who acts in such a way is saying to the child, "I trust you". An amalgamation, then, of trust, accountability, security level, of challenge and appeal of mastery of the task itself, may be responsible for the recorded high levels of on-task involvement of the pupils at such times.

In quite recent months in N.S.W., all Government schools have been required by their Director General of Education to "formulate a discipline policy". The printed information circulated amongst schools at the time of this directive advised that, as parents and teachers share responsibility for the development and education of children, parents should be involved, alongside teachers, in the development of the policy. Schools in the Mt Druitt Longitudinal Study appeared to take this request seriously and a series of meetings, surveys, seminars and discussions took place between teachers and parents in all eight schools. As far as the Longitudinal Study research team is aware, none of the policy statements developed as a consequence of these exercises alluded to the necessity for systematic development of the teachers' managerial skills as an integral part of a school's discipline policy.

As the data and the findings reported earlier clearly indicate teachers' skills in managing generally, and particularly in constructing classroom environments in which pupil on-task activity is maximised and pupil initiated disruption minimised, varied greatly between teachers. Such variation can be accounted for to some extent by

characteristics of the pupils, such as their level of achievement prior to instruction, although this does not provide a full explanation. Additional variables must impinge upon the instructional setting to produce the observed variation reported here; teacher's skills and techniques, or their lack of them, must be taken into account as well as teacher characteristics, such as their "with-it"-ness. Teachers must be aided to: first, identify their managerial strengths and weaknesses; and, second, to accept responsibility for their personal, professional development; and third, to undertake steps necessary to improve their skills. If a systematic process such as that is not done, it remains too easy to evade accountability by the ruse of asking "what can you do with children like that, from families like those?"

Almost every time the Longitudinal Study team sets out to substantiate a hypothetical characteristic of the life, experiences, accomplishments, or background of the disadvantaged child, a myth is destroyed. There is, for example, no cumulative achievement gap in the tested outcomes of Mt Druitt disadvantaged children; their parents are strongly supportive of the schools and have high expectations of the outcomes of their child's schooling experience.

Disadvantaged children were not found, in the systematic observation reported here, to be any more, or any less disruptive in school than were the non-disadvantaged youngsters with whom they were compared.

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FIVE MINUTE TEACHER DESIST STRATEGIES

OBSERVER: DATE: TIME: TEACHER: SCHOOL: CLASS:

Interaction Context																				
1. Individual child	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2. Two children	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3. Small Group (3-6)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4. Large Group (7+)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5. All children	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Content																				
1. L.A.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2. Mat.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3. R	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4. Trans	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5. Wait	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6. Other Acad.	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7. Other	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
To Whom																				
1. Individual (1)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2. Two Children (2)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3. Small Group (3-6)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4. Large Group (7+)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5. All	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6. None	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
What																				
1. Off-task talk to other pupil, note-passing	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2. Calling out of turn, rowdiness	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3. Observing/listening off-task	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4. Verbal aggression to other/s	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5. Physical aggression to other/s	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6. Arguing/answering back to teacher	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7. Play, fidget	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8. Tantrum	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9. Sulking	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
10. Crying	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
11. Passive/withdrawn	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
12. Out of seat	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
13. Alternative task	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
14. Tardiness	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
How																				
1. Guide to alternative	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2. Ask for reason	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3. Indirect desist - Question	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4. Command to stop	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5. Withdrawal privilege	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6. Withdrawal attention	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7. Record Record	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8. Appeal to fair-play	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9. Appeal for co-operation	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
10. Require pupil decision	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
11. Consultation	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
12. Sarcasm	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
13. Threat	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
14. Send from room	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
15. Send to other adult	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
16. Physical punishment	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
17. Waiting	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
18. Focused glower	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
19. Indicate awareness	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Effect																				
1. Lessening of pupil behaviour	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2. Strengthening of pupil behaviour	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3. No discernible change in pupil behaviour	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

CHILDNUMBER: _____ OBSERVER: _____ DATE: _____ SCHOOL: _____ CLASS: _____ TEACHER: _____ CHILD NAME: _____

CONTEXT

	Time	Cycle 1					Cycle 2					Cycle 3				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1. Teacher attending to:	1. 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2. 2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	3. 3-6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	4. 7+	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	5. ALL	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	6. NONE	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
2. Content:	1. L.A.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2. MAT.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	3. R	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	4. TRANS	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	5. WAIT	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	6. OTHR. ACAD.	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	7. OTHER	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
3. Adult Activity:	1. INSTRUC	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2. DIREC	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	3. DEM	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	4. QUST	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	5. LISWT	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	6. RESP	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	7. F/B	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	8. MAN	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	9. CON	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	10. SOC	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	11. MOV	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
	12. PASS	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
4. Structure:	1. TSTRC	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2. TSTRO	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	3. CSTR	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Child Description:

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INTERACTION

TEACHER/PUPIL

		Cycle 1					Cycle 2					Cycle 3				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
5. Child to Adult:	1. INIT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2. STAR	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	3. LISWT	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	4. PART	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
6. Adult to Child	1. INSTRUC	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2. DIREC	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	3. DEM	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	4. QUST	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	5. LISWT	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	6. RESP	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	7. F/B	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	8. MAN	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	9. CON	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	10. SOC	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	11. MOV	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
	12. PASS	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
7. Gender:	1. SS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2. OS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

PUPIL/PUPIL

		Cycle 1					Cycle 2					Cycle 3				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
8. Pupil to Pupil	1. AGGR	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2. INIT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	3. COOP	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	4. WITHD	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
9. Pupil from Pupil	1. AGGR	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2. INIT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	3. COOP	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	4. WITHD	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	5. IGN	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
10. Gender:	1. SS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2. OS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

DESCRIPTORS

		Cycle 1					Cycle 2					Cycle 3				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
11. Type of Activity:	1. MTL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2. CON	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	3. BOTH	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
12. Verbalisation:	1. V	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2. N-V	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
13. Affect:	1. POS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2. NEG	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
14. Structure:	1. TSTRC	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2. TSTRO	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	3. CSTR	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
15. Pupil Activity:	1. PAT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2. KOA	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	3. IDIO	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	4. TRAS	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	5. WAIT	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	6. ASSIST	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	7. L/WTOFF	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	8. PLAY	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	9. PASS	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	10. SOC	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	11. DIST	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11

NOTES: . . . . . .

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APPENDIX B

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APPENDIX C
CLASSROOM PICTURE INFORMATION

Observer: Date: Time: Teacher: School: Class:

	Individuals	Pairs		Small Groups		Large Groups		All Pupils
		No.of Pairs	No.of Pupils	No.of Groups	No.of Pupils	No.of Groups	No.of Pupils	
Language Study								
Mathematics								
Reading								
Other Academic								
Other								

Off-Task Pupil Behaviour
Classroom Scan

Teacher Attending to	1. 1 2. 2 3. 3-6 4. 7+ 5. All	1 2 3 4 5

Pupil Behaviour	Tally	No
Off-task talk (whispering, social chat, note passing)		
Calling out of turn, rowdiness		
Observing or listening to others off task		
Verbal aggression towards other pupils		
Physical aggression towards other pupils		
Arguing, answering teacher back		
Play, fidget		
Tantrum		
Sulking		
Crying		
Passive, withdrawn		
Out of seat		

9H